LANDS DIRECTORATE

DIRECTION GENERALE DES TERRES

THE ABANDONMENT OF AGRICULTURAL LAND IN GASPÉ, QUÉBEC: THE CAUSES AND THE IMPACTS ON LAND USE

WORKING PAPER No. 29

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THE ABANDONMENT OF AGRICULTURAL LAND IN GASPÉ, QUEBEC: THE CAUSES AND IMPACTS ON LAND USE

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Environment Canada

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PREFACE

Land use and its rational management pose difficult economic and environmental issues for Canada. The question of land use is complex and differs from one region to another. Generally speaking, physically disadvantaged rural areas in Canada support a mix of land uses. The substantial decrease in farmland over the past few decades has made it necessary to look closely at land use trends and processes in these regions in order to examine probable scenarios for development. The Gaspé region is one of the three rural regions in Canada for which the abandonment of farmland, and its causes and impacts on land use, are being studied in detail by the Lands Directorate of Environment Canada in order to clarify the national trends.

The Lands Directorate analyses land use trends nationally and evaluates the various factors influencing them. We trust that a better understanding of renewable resource will, in response to the desires of Canadians, lead to wise use of the nation's land resource.

RÉSUMÉ

La Direction générale des terres d'Environnement Canada analyse la problématique de la diminution des terres agricoles dans la région gaspésienne entre 1961 et 1981. Certaines causes physiques, socio-économiques et politiques jouent un rôle important dans l'évolution de l'utilisation des terres agricoles. Le boisé de ferme est la superficie agricole ayant subi la plus grande diminution à cause du faible taux de conservation de cette ressource. Depuis 1976, la situation se rétablit lentement. Une étude de cas localise spécifiquement l'évolution de l'utilisation des terres où les terres agricoles abandonnées et les secteurs de reboisement des terres agricoles sont retracés. Ainsi, nous retrouvons que la majorité des terres agricoles abandonnées sont inutilisées en 1981. Finalement, les alternatives de développement sont élaborées.

ABSTRACT

This report prepared by Environment Canada's Lands Directorate analyzes the issue of farmland abandonment in the Gaspé region of Quebec, from 1961 to 1981. Physiographic, socio-economic and political forces have each played an important role in agricultural land use changes. Since 1976, however, the situation has been showing signs of slow recovery. A case study identifies specifically the areas experiencing changes in agricultural land use and the areas where reforestation is taking place. Results of the study showed that the majority of abandoned farmland was unused in 1981. Finally, development alternatives are outlined.

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W.K. Bond and E.W. Manning of the Lands Directorate established the framework for the project, and discussions with Nicole Lavigne advanced our work. Thanks to the staff of the Canadian Lands Data Systems Division, who made possible our analysis of the changes in land use in the study areas between 1961 and 1981, and to C. Aubin-Lalonde, for her excellent word-processing work. We are also grateful to Michael Joyce, Michel Mongeon and Marie-Andrée Slevan and Hélène Bruneau for their study of industrial infrastructure since 1963, the photo-interpretation of specific study areas, and layout of the text. Thanks also to Simon Henchiri of the Editorial and Publications Division.

TABLE OF CONTENTS

		Page
PREFACE		iii
RÉSUMÉ		iv
ABSTRACT		iv
ACKNOWLEDGEMENTS		v
LIST OF TABLES		ix
LIST OF FIGURES		x
1.	INTRODUCTION	1
	1.1 Objectives	1
	1.2 Methodology	3
2.	NATURAL AND HISTORICAL CHARACTERISTICS	7
	2.1 Physiographic Factor	7
	2.2 Climate	7
	2.3 Market Accessibility	10
	2.4 Agro-Forest Boundaries	10
	2.5 Brief Background	15
	2.6 Socioeconomic Characteristics	18
	2.7 Conclusion	18
3.	CHANGES IN LAND USE	20
	3.1 Changes in Farmland	20
	3.2 Changes in Improved Land	24
	3.3 Changes in Land Under Crops	28
	3.4 Changes in the Number of Farms	30
	3.5 Importance of the Forest Sector	30
	3.6 Conclusion	34
4.	CASE STUDY: CARLETON AND CAUSAPSCAL AREAS	35
	4.1 Agricultural Changes	35
	4.2 Agricultural Contraction	36
	4.3 Part-Time Farming	36
	4.4 Quality of Abandoned Farmland	42

Page

4.5 Consolidation of the Dairy Industry 46
4.6 Agro-Forest Development 46
4.7 Changes in Forest Industry Operations 50
4.8 Land Management 51
4.9 Conclusion 51

5. CAUSES OF THE DECREASE IN FARMING 58
5.1 Social Factors 58
Change in Farming and Total Population
Demographic Concentration
Rise in Educational Levels
Personal Aspirations
5.2 Economic Factors 63
Poor Employment Opportunities
Local Farm Market Situation
Importance of the Forest Industry
A Diversified Economy
5.3 The BAEQ: an Experiment in Economic Development 66
Background and General Orientation
Modernization of Traditional Sectors
A New Agricultural Organization
Rationalization of the Forest Industry by the BAEQ
Other Sectors
5.4 Conclusion 70

6. SUMMARY AND PROSPECTS 71
6.1 Objective of the Study 71
6.2 Abandonment of Farmland in Gaspé 71
6.3 New Uses for Land No Longer in Agricultural Use 72
6.4 Causes and Consequences 72
6.5 Prospects 73

BIBLIOGRAPHY 75

ANNEXES

ANNEX 1. Names of Municipalities Within Standardized Areas 78
ANNEX 2. The Canada Land Inventory: Land Potential for Agriculture and Land Potential for Forestry 84

		Page
ANNEX 3.	Table 1 - Farmland (Hectares) for Each Standardized Area and Changes in Farmland Area Between 1961 and 1981	89
	Table 2 - Improved Land (Hectares) for Each Standardized Area and Changes in Farmland Area Between 1961 and 1981	90
	Table 3 - Land Areas Under Major Crops (Hectares) Between 1961 and 1981	91
	Table 4 - Farmland (Hectares) for Each Standardized Area and Changes in Farmland Area Between 1961 and 1981	92
WORKING PAPER SERIES		93

LIST OF TABLES

		Page
2.1	Agricultural Capability of Gaspé Lands by County and by Study Area (CLI Classes in Hectares)	12
2.2	Forestry Capability of Gaspé Lands by County and by Study Area (CLI Classes in Hectares)	13
2.3	Situation in the Manufacturing Sector in the Gaspé Region, 1961	19
3.1	Percentage of Labour Force by Economic Sector, 1981	33
4.1	Agricultural Characteristics of the Carleton and Causapscal Areas and Their Respective Counties (Land Area in Hectares) Between 1961 and 1981	37
4.2	Comparison of Land Use in the Carleton Area for the Years 1961 and 1981 (Hectares)	43
4.3	Comparison of Land Use in the Causapscal Area for the Years 1961 and 1981 (Hectares)	44
4.4	Quality of Abandoned Farmland (Hectares) in the Study Areas Between 1961 and 1981	45
5.1	Change in Total Population in the Gaspé Region, 1961-1981	60
5.2	Change in Farming Population in the Gaspé Region, 1961-1981	60
5.3	Percentage Distribution of Farm Operators by Farm Income Levels in Each County, 1971-1981	62

LIST OF FIGURES

		Page
1.1	Gaspé Study Region	2
1.2	Standardized Areas in the Gaspé Region, 1961-1981	4
1.3	Specific Study Area	5
2.1	Topography of the Gaspé Region	8
2.2	Number of Frost-Free Days (0°C)	9
2.3	Agricultural Capability in the Gaspé Region	11
2.4	Forestry Capability in the Gaspé Region	11
2.5	Area of Farmland in the Gaspé Region (Hectares), 1961 and 1981	14
3.1	Absolute Change in Farmland for the Gaspé Region Between 1961 and 1981	21
3.2	Change in Farmland Between 1961 and 1981	22
3.3	Percentage Change in Farmland Between 1961 and 1981	22
3.4	Absolute Change in Farmland Between 1976 and 1981	23
3.5	Change in Improved Area Between 1961 and 1981	25
3.6	Percentage Change in Improved Area Between 1961 and 1981	25
3.7	Ratio Between Improved Land in 1961 and Good Quality Agricultural Land (Classes 1-3)	26
3.8	Correlation Between Good-Quality Agricultural Land (Classes 1-3) and Improved Land, 1961 and 1981.	27
3.9	Absolute Change in Land Under Crops Between 1971 and 1981	29
3.10	Absolute Change in Land Under Crops Between 1976 and 1981	29
3.11	Change in Number of Farms Between 1961 and 1981	31
3.12	Percentage Change in Number of Farms Between 1961 and 1981	31
3.13	Absolute Change in Number of Farms Between 1976 and 1981	32
4.1	Loss of Agricultural Land in the Carleton Area Between 1961 and 1981, and Its Use in 1981	38
4.2	Loss of Agricultural Land in the Causapscal Area Between 1961 and 1981, and Its Use in 1981	40
4.3	Loss of Forest Land in the Carleton Area Between 1961 and 1981 and Its Use in 1981	52

		Page
4.4	Loss of Forest Land in the Causapscal Area Between 1961 and 1981 and Its Use in 1981	54
4.5	Land in the Causapscal Area Under Development by the Société d'exploitation des ressources de la vallée Inc.	56
5.1	Total Population of the Gaspé Region by Age and Sex, 1961 and 1981	59

1. INTRODUCTION

Between 1961 and 1981, major agricultural land use changes were evident across Canada. According to McCuaig and Manning (1982), a dividing line for these trends occurred at the Manitoba-Ontario border, with a considerable decrease in farmland to the east and a substantial increase in farmland to the west. These authors have established that in the east, the largest losses in improved land occurred in certain regions, among them the Gaspé region where rapid losses of farmland occurred, i.e. where farmland contracted. Between 1961 and 1976, the peninsula as a whole lost 52% (28,878 hectares) of its improved land. Between 1976 and 1981, the situation stabilized, and only a slight decrease occurred (3,083 hectares). Likewise, the national marginal lands study by Beattie et al. (1981) analysed the "agricultural frontiers" and the factors which define "economic marginality". The study focused on the contraction of agricultural frontiers in Canada and on the various uses of marginal farmland; it showed that the Gaspé region was marked by an extreme decrease in area in agricultural use.

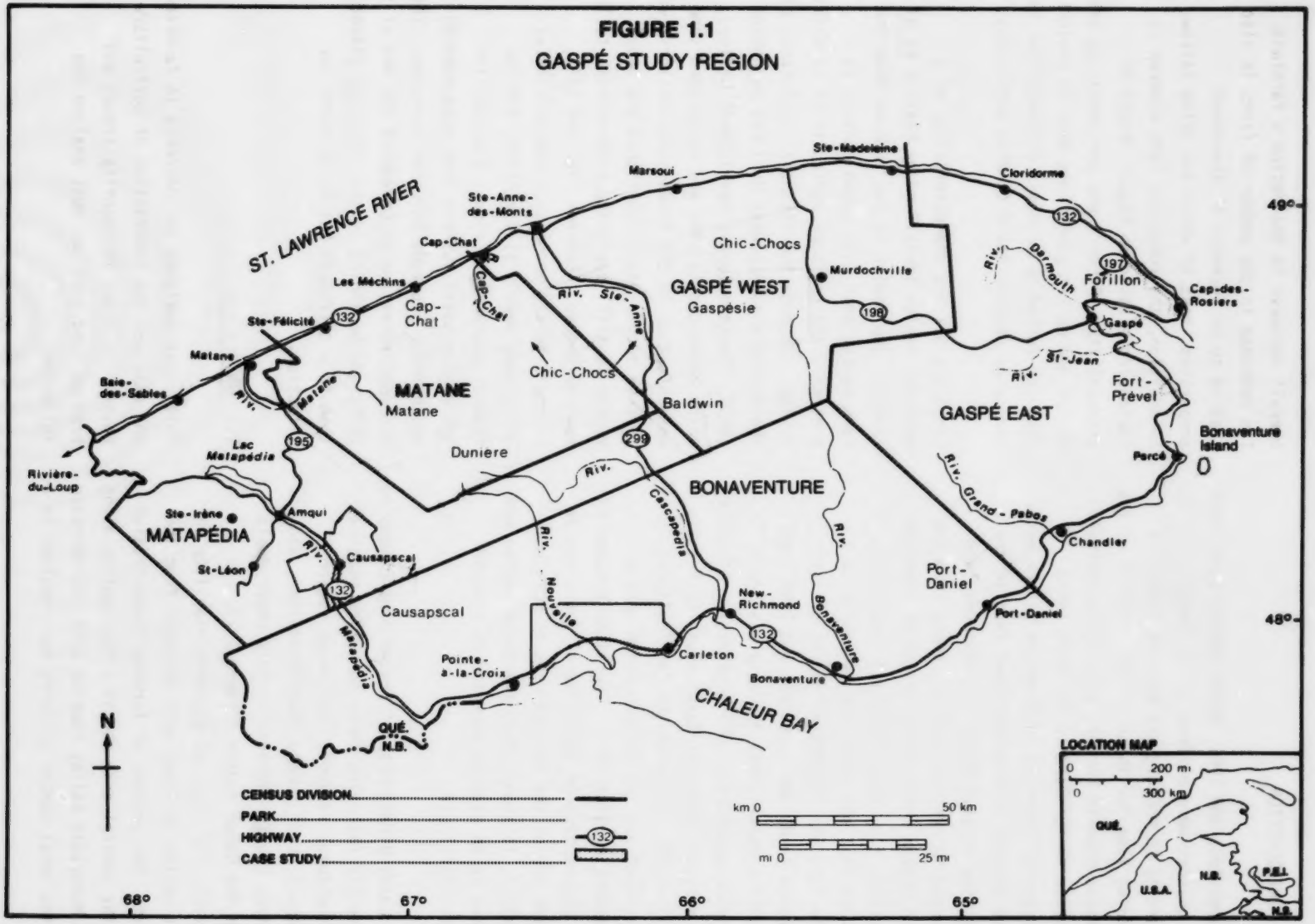
The Lands Directorate of Environment Canada is presently analysing three so-called marginal agricultural regions: the Gaspé region (Quebec), Kent County (New Brunswick), and Renfrew County (Ontario). This paper deals with the Gaspé region (Figure 1.1). In general, the level of economic viability in this region declines with distance from the coast. The process of farming concentration in the coastal area and in a few regions along the Matapédia Valley coupled with the decrease in the total number of farms has resulted in a overall decrease in the region's farmland. The decrease in the number of farms is also leading to an increase in abandoned properties, most of which are lying fallow. In addition, the remaining farm economy is increasingly based on higher levels of productivity. Farmers who are unable to adapt to the new market conditions have no choice: they are forced by economic circumstances to reduce or abandon their farming activities.

Gaspé has all the characteristics of a marginal region identified by Beattie et al. (1981): the region is far removed from the farm market near such urban centres as Montreal, and regional agricultural capability is low. Despite the financial assistance of the Bureau d'aménagement de l'Est du Québec (BAEQ) [Eastern Quebec Development Office], which commenced in 1963 and encouraged some modernization in the traditional sectors, we observe twenty years later that the Gaspé region is still depressed with respect to the rest of Quebec. Between 1963 and 1973, programs to aid Gaspé cost the provincial government nearly $114 million, and the federal government, almost $300 million. But the region still suffers from disadvantages which these programs have not overcome. The economic recession in Canada at the end of the 1970s and beginning of the 1980s has placed them in a difficult but by no means new situation.

1.1 Objectives

This paper analyses the decrease in farmland and assesses the contraction of agriculture in Gaspé. In order to identify trends and present land uses, we must analyse the following:

FIGURE 1.1
GASPÉ STUDY REGION



1. The relationship of physical variables to the major land uses (forestry, agriculture).

2. The location of farmland and forest "losses" and their new uses.

3. The role of organizations and of socioeconomic and political variables in agricultural land use changes.

4. A final synthesis and identification of the possible types of intervention which would make efficient the mobilization of the land resource and would minimize socioeconomic costs.

These steps are taken in order to both identify the specific parameters of land use change in the Gaspé region and to evaluate the causes and consequences of these changes in terms of wise land-resource use.

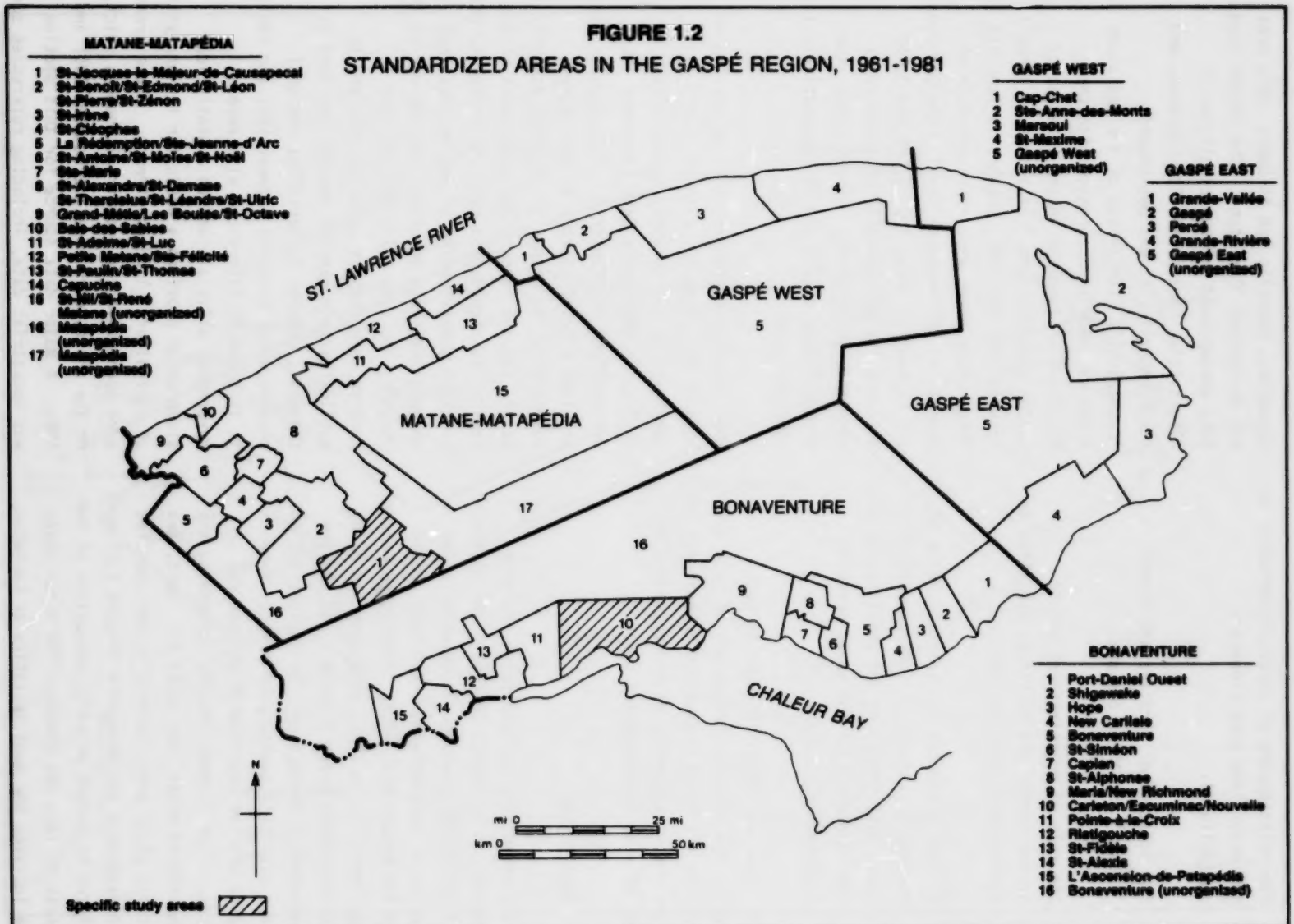
1.2 Methodology

Before presenting and analysing the data gathered, it is useful to detail the approach followed in the research undertaken in the counties of Bonaventure, Gaspé-East, Gaspé-West and Matane-Matapédia. Statistics Canada data, from 1961 to 1981, were compared using 43 standardized areas (Figure 1.2). As the boundaries of these areas, by design, did not change over this twenty-year period, they allowed precise observation of land use trends. (For further details concerning the standardized areas, see Annex 1). Next, two specific study areas located in the counties of Bonaventure and Matapédia (Figure 1.3) were analyzed to permit detailed evaluation of the process of land use change. The first study area included the municipalities of Carleton, Escuminac, Nouvelle and St-Omer; this area was designated "Carleton". The second study area encompassed the municipalities of Albertville, Causapscal, Ste-Florence, and Ste-Marguerite; it was designated "Causapscal". The choice of the two study areas was made in accordance with the magnitude of farmland losses (Statistics Canada uses the term "total area on farms"). Between 1961 and 1981, changes in land use in these study areas were representative of changes at the regional level: the Carleton and Causapscal areas lost 8,806 and 9,660 hectares (or 48% and 47%) of their total farmland, respectively. These areas also showed losses of 31% and 48% respectively in improved land.

Some physical characteristics of the region such as physiography, climate, and agricultural and forestry capabilities, as defined in the Canada Land Inventory (CLI), are outlined in Chapter 2. This chapter also provides a brief history of the region summarizing the nature of regional activity in Gaspé, and the reasons for settlement of the region; it should also help the reader to gain a better understanding of the various land use changes that have occurred. At the end of the chapter, the data collected are used to portray farmland use prior to 1960 and to outline certain general reasons for land use changes. Chapter 3 identifies regional changes which occurred between 1961 and 1981; it is based on interviews with several government officials and on a statistical study which provides a basis for the analysis of agricultural land use trends. These trends were accompanied by industrial changes which, on the whole, were negative between 1961 and 1981. A major data source for this section was industrial data, including references such

FIGURE 1.2

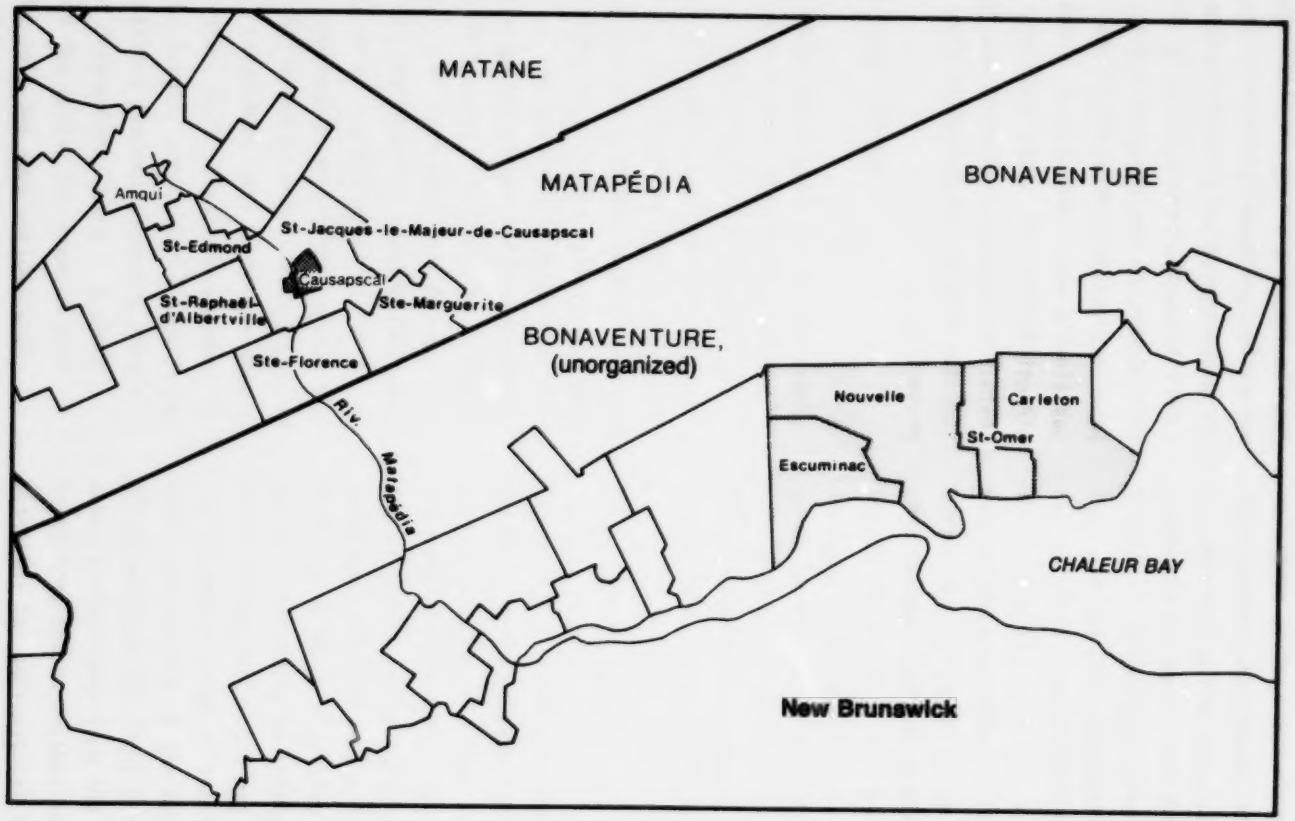
STANDARDIZED AREAS IN THE GASPÉ REGION, 1961-1981



Source: Statistics Canada Census, 1961-1971-1976-1981.

FIGURE 1.3

SPECIFIC STUDY AREAS



Prepared by Statistics Canada, 1981

as the "Scott" Industrial Inventory.

Chapter 4 traces agricultural land use changes between 1961 and 1981 and the specific reasons for these changes in the two special study areas of Carleton and Causapscal. Using photo-interpretation, areas where land use changes have occurred are identified and the current use of abandoned farmland is determined and then compared with their agricultural and forestry capabilities according to the CLI. (For further details on the CLI, see Annex 2). Chapter 5 examines the causes and consequences of the land use changes in Gaspé. The following elements are involved: demographic changes resulting in a lack of a new generation of farmers; the trend towards a dual farm economy (large scale dairy farming and diversified farming); the changing aspirations of Gaspé inhabitants and the changing strength of potential markets. Interviews with farmers helped to complete this segment of the research. Chapter 6 describes possible developments for sustainable use of Gaspé land in relation to current markets and land capability. For some years now, the dominant trend has been towards forestry and, in the Matapédia Valley, dairy production.

2. NATURAL AND HISTORICAL CHARACTERISTICS

Land use is influenced by physical constraints and by historical factors. These factors help us to understand the "why" and "how" of land use. The active labour force in the Gaspé region is occupied in several economic activities: farming, forestry and fishing. Generally speaking, there is not much specialization. The economic base is multi-sectoral; this study focuses principally on those sectors directly dependent on land resources, that is, agriculture and forestry.

2.1 Physiographic Factor

Figure 2.1 shows the topography of the Gaspé, which is marked by the Chic-Chocs mountains which rise to an altitude of 600 metres or more. Certain regions, such as the northern side of Gaspé, the Matapédia Valley which cuts across the peninsula, and the coastline of the Baie des Chaleurs have reasonable agricultural capabilities. The Appalachian Mountains are a major barrier making access and the economic use of land difficult. According to Raveneau (1971), the use of farm machinery becomes difficult, and the risks of erosion increase, on slopes of more than 5°. Cultivation is practically impossible when slopes exceed 9°. Thus, since hills and mountains with slopes of more than 5° cover more than three-quarters of the Gaspé region, agricultural development is limited. The largest agricultural area is on the lower Chaleurs plateau, covering almost one-third of Bonaventure County. A short distance from the coast, for example in Carleton, the soil has some agricultural capability (CLI class 3 or 4), but it slopes steeply to more than 300 metres. The features of the transverse Matapédia River valley are more favourable to agriculture. Its alluvial soil represents a happy exception within this region which is otherwise so difficult to farm. The peninsula is crisscrossed by a multitude of streams running southward through deep gorges. All these constraints reduce the extent of potential farmland. Forestry, however, is possible in these hilly regions, limited principally by slopes of more than 5°, the soil and the stones. Most of the Gaspé has thus moderate capability for forestry.

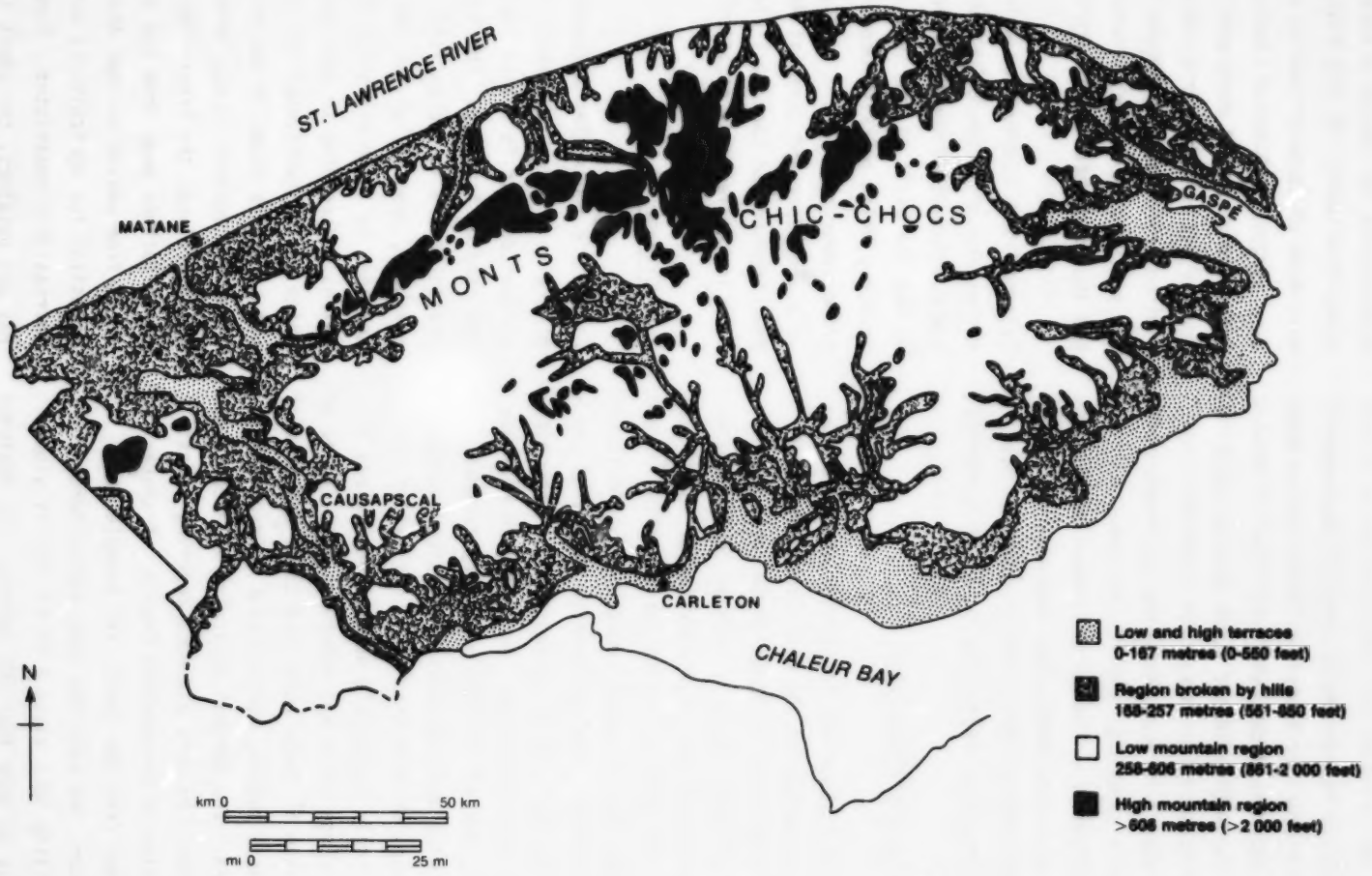
Later in this chapter, we will see that the harvesting of "pulpwood" provided the basis for settlement of the Gaspé region. In fact, it was the basis of the development of an industry which quickly rose to a position of prime importance in the regional economy. The pulp and paper industry (at Matane, New-Richmond and Chandler) plays an important role in the region's socioeconomic health.

2.2 Climate

Figure 2.2 shows that although climate is generally a major constraint on Gaspé agriculture, it is a less restrictive one in the case of forestry. The longest frost-free season occurs in the parishes along the seashore, that is, on the low and high terraces up to an elevation of about 160 metres. According to Thériault (1966), areas which can be cultivated are grouped within a 6.4 kilometre range of the sea. Such coastal areas are subject to the ocean's influence, which prolongs the frost-free season. As one moves further away from the ocean, the frost-free season becomes shorter, and the potential for agricultural activities is increasingly restricted. Some crops, such as hay and potatoes, can adapt to the more severe temperatures.

FIGURE 2.1

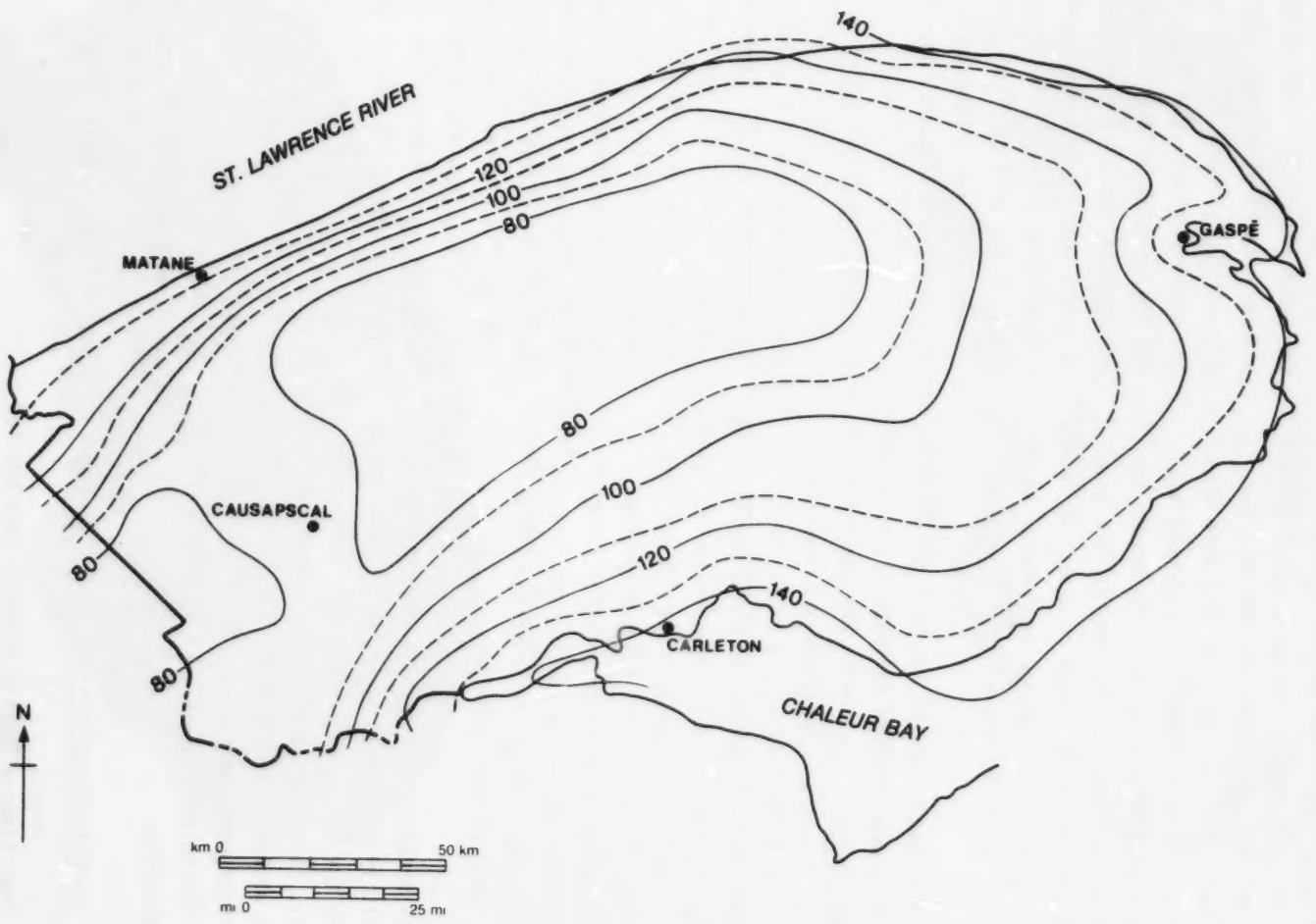
TOPOGRAPHY OF THE GASPÉ REGION



Source: BAEQ. 1966.

FIGURE 2.2

NUMBER OF FROST-FREE DAYS (0° C)



Source: BAEQ. 1966.

Compared with other agricultural regions of Quebec, the Gaspé region has low precipitation and a short frost-free period (September 1 - June 1). The growing season in Gaspé is less than 170 days, compared with 220 days for Montréal. Montréal benefits from more than 3,500 degree days (above 5°C), whereas the Gaspé registers only about 2,500 degree days. Compared with the Montréal region, the Gaspé has a growing season which is about four weeks shorter; tomatoes, cabbage and celery, for example, cannot be grown.

The bioclimatic zone of the Baie des Chaleurs shoreline has the best agricultural potential in the region. If climatic and physiographic variables such as topography and land area which can be cultivated are taken into account, the region located along the Baie des Chaleurs, with its mild, humid climate, stands out. However, agriculture was not the sole activity of this area. As history shows, settlers had to carry out a whole range of activities, including farming and forestry, in addition to fishing, in order to survive. This "polyvalence" continues.

Local physical and climatic characteristics result in fragmented agricultural development along the coast, concentrated in specific areas, particularly the low and high terraces, with at least 140 frost-free days. But physiographic characteristics and climate are not the only constraints on agricultural development.

2.3 Market Accessibility

The importance of market accessibility has led to concentration of agricultural activity in the Matapédia Valley, where the Matane industrial centre and the Bic Dairy Co-operative of Rimouski County are located. Access to the Montréal/Québec market is via the main highway, Highway 132, which circles the Gaspé Peninsula. Poor development of the highway network is an additional constraint on both agriculture and forestry development. The problem of accessibility restricts trade and the creation of development centres. As a consequence, the agricultural infrastructure of years past is maintained, while modern agricultural infrastructure, based on large areas of improved land and good market access, is hampered. The fragmentation of properties also limits agricultural development.

2.4 Agro-Forest Boundaries

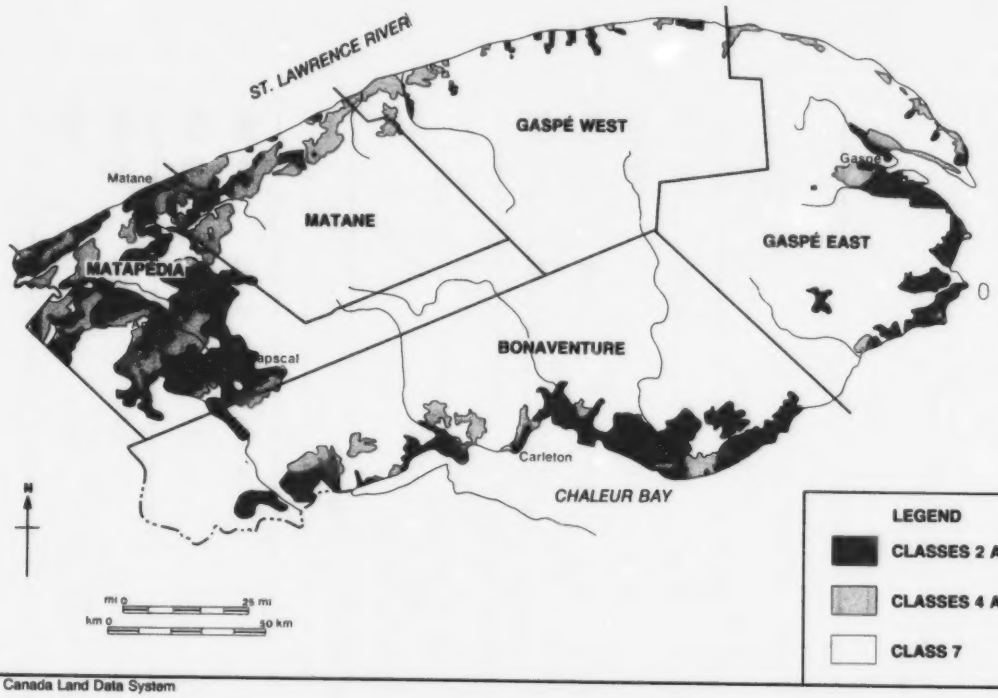
The Gaspé region has a surface area of 30,000 square kilometres, but farmland is very limited. Figures 2.3 and 2.4 identify concentrations of agricultural potential in parts of the counties of Matapédia and Bonaventure, while forestry capability is spread throughout the Gaspé Peninsula. Table 2.1 specifies that only 15% of the Gaspé area has CLI classes 2 to 5 agricultural capability. Some 85% of the surface area lacks any agricultural capability (class 7), because of the sharp relief and rigorous climate.

Figure 2.4 shows that Gaspé has greater physical capability for forestry development. Classes 3 to 5 forestry capability are present in more than 90% of the Gaspé area (table 2.2). The greatest potential is represented by class 3, which covers 22% of the region.

There is a natural correlation between agricultural capability and farm area. Figure 2.5 shows that the counties of Bonaventure and

FIGURE 2.3

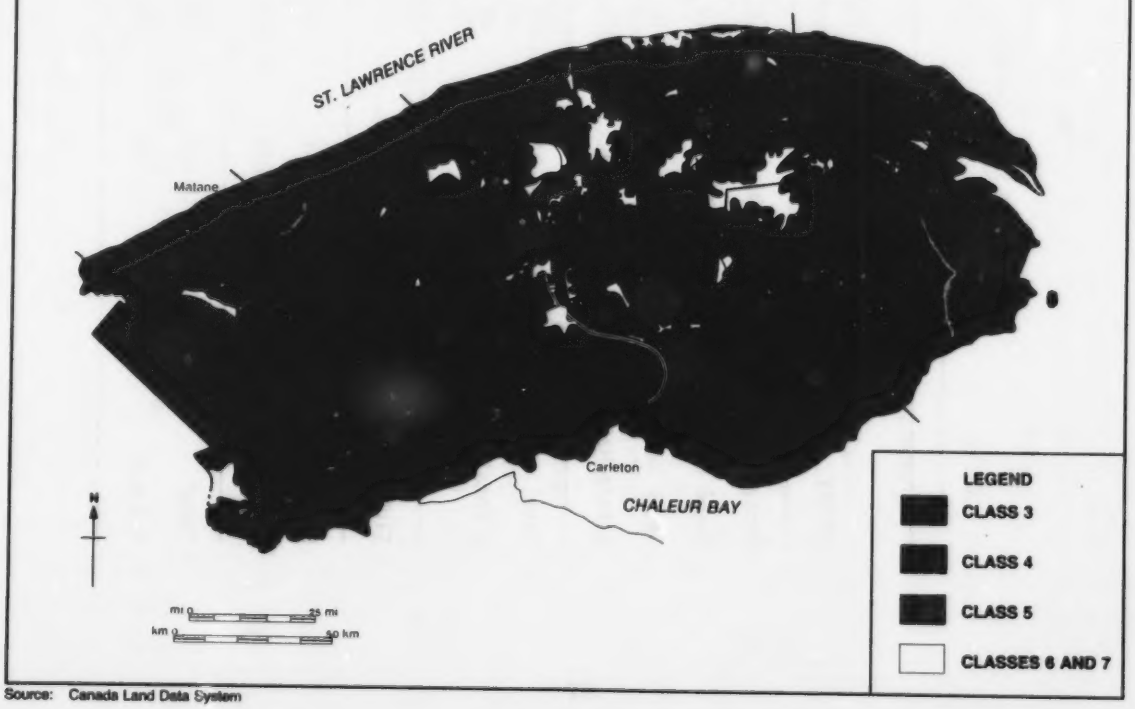
AGRICULTURAL CAPABILITY IN THE GASPÉ REGION



Source: Canada Land Data System

FIGURE 2.4

FORESTRY CAPABILITY IN THE GASPÉ REGION



Source: Canada Land Data System

TABLE 2.1

AGRICULTURAL CAPABILITY OF GASPÉ LANDS BY COUNTY AND BY STUDY AREA
(CLI CLASSES IN HECTARES)

	Class								
COUNTY	1	2	3	4	5	6	7	0	Total
Bonaventure	0	36 848	48 732	33 685	14 538	0	753 110	2 598	889 511
Gaspé East	0	13 776	21 018	6 818	16 028	0	541 792	0	599 432
Gaspé West	0	0	7 416	1 759	5 918	0	567 104	332	582 529
Matane-Matapédia	0	47 386	99 676	11 290	64 240	0	657 470	13 092	893 184
Total	0	98 010	176 842	53 552	100 724	0	2 519 476	16 022	2 964 656
% Total	0%	3%	6%	2%	4%	0%	84%	1%	100%
STUDY AREA									
Carleton	0	3 822	4 795	4 449	2 425	0	34 684	5 111	55 286
Causapscal	0	10 040	10 988	2 650	2 520	0	17 652	1 571	45 421
Total	0	13 862	15 783	7 099	4 945	0	52 336	6 682	100 707
% Total	0%	14%	15%	6%	4%	0%	54%	7%	100%

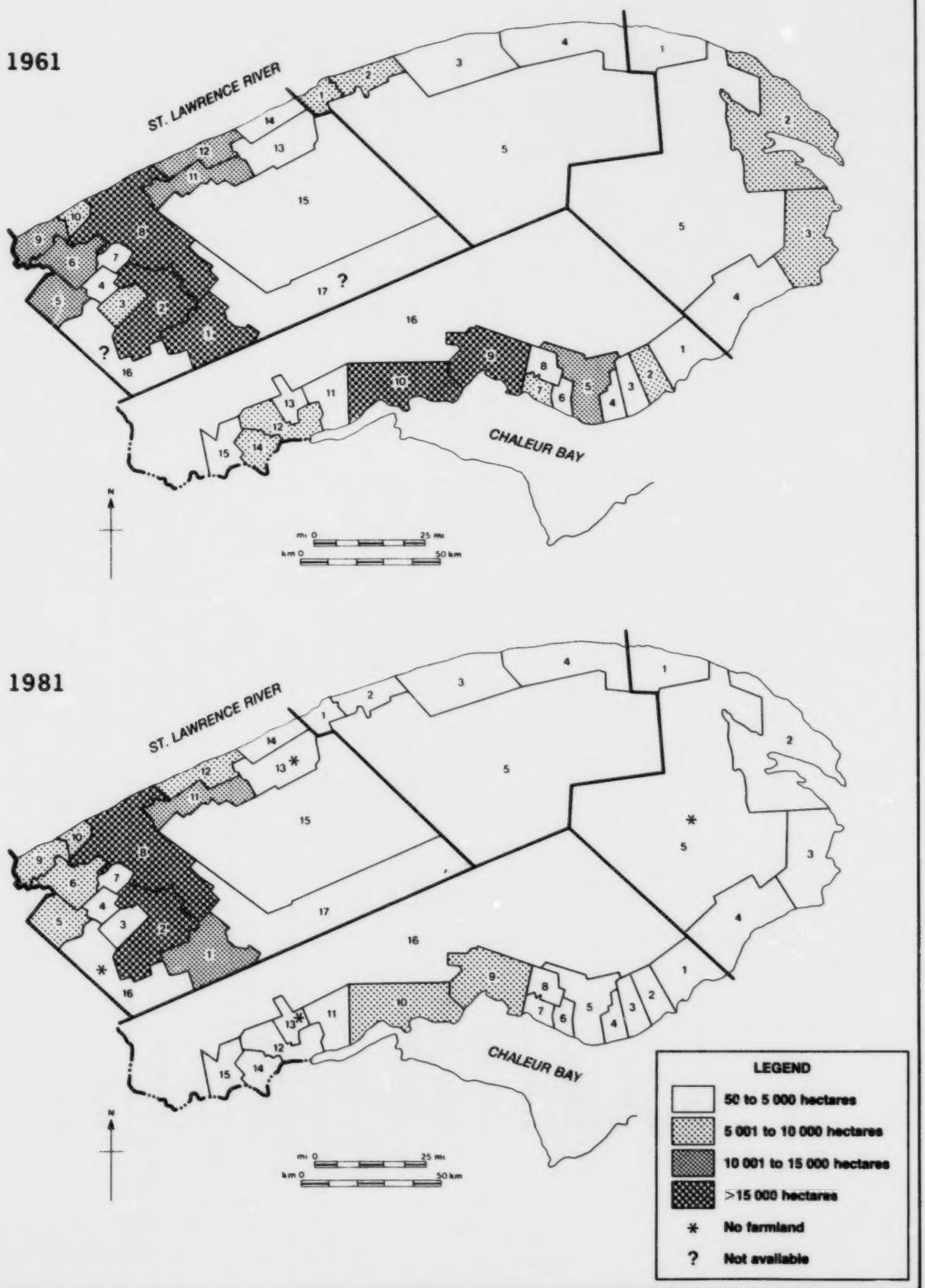
TABLE 2.2

FORESTRY CAPABILITY OF GASPÉ LANDS BY COUNTY AND BY STUDY AREA
(CLI CLASSES IN HECTARES)

COUNTY	Class 1	2	3	4	5	6	7	Total
Bonaventure	0	159	204 379	472 426	168 460	43 999	88	889 511
Gaspé East	0	0	115 789	222 581	215 035	43 554	2 473	599 432
Gaspé West	0	0	86 631	208 624	153 106	94 207	39 961	582 529
Matane-Matapédia	0	0	245 121	512 717	85 045	33 314	16 976	893 184
Total	0	159	651 920	1 416 348	621 646	215 074	59 498	2 964 56
% Total	0%	1%	22%	48%	21%	7%	3%	100%
STUDY AREA								
Carleton	0	0	16 901	30 904	4 392	3 089	0	55 286
Causapscal	0	0	10 711	31 598	2 001	1 111	0	45 421
Total	0	0	27 612	62 502	6 393	4 200	0	100 707
% Total	0%	0%	27%	64%	6%	3%	0%	100%

FIGURE 2.5

AREA OF FARMLAND IN THE GASPÉ REGION (HECTARES), 1961 AND 1981



Matapédia, in which we find the best agriculture capability, also contained the largest farm areas in 1961. Twenty years later, only the county of Matapédia, or more specifically, the Matapédia Valley, contained large areas of active farming. Furthermore, the next chapter shows that a substantial overall decrease in farmland has been recorded since 1961. Forestry development continues to be weak, principally because of slower growth of forests in the region, as well as minimal (with some exceptions) development efforts.

2.5 Brief Background

In order to provide an outline of the land use changes in a regional context, the following paragraphs give a brief history of the settlement of the Gaspé region, the development of its diverse natural resources, and the evolution of the various elements of industrial infrastructure which form the region's economic base.

Dense settlement of the Gaspé region is a recent phenomenon, with most land colonization occurring this century. Territorial expansion and development of natural resources have been slow. At the beginning of the nineteenth century, settlers of French origin gradually moved to the east, to meet Acadians and British Loyalists who had already settled in the small fishing villages between Cap-des-Rosiers and Carleton. According to Closse (1928), migrants from eastern Canada (New Brunswick and Prince Edward Island) were also attracted by the cod fishery, which was the principal economic activity.

The Great Depression of 1929 interrupted the development of ten fishing co-operatives established in Gaspé because of the efforts of the proponents of the Mouvement Desjardins. All except the Carleton Fishermen's Co-operative went bankrupt. After World War II, several co-operatives entrusted a federation, the Pêcheurs Unis du Québec [United Fishermen of Quebec], with the national and foreign marketing of fish processed in Gaspé plants. This federation, which included 800 Gaspé fishermen, went bankrupt at the beginning of the 1980s, in large part because of national and international economic conditions.

In the second half of the nineteenth century and the beginning of the twentieth, fishing was still important, but farming and forestry attracted many workers, particularly in the county of Bonaventure, in the Valley, and on the north coast of the Peninsula, between Matane and Ste-Anne-des-Monts. The village sawmill was the center of activity for several new parishes, particularly in the Valley, where the Lacroix company of Beauce (Québec) carried out several forest projects in Causapscal and the surrounding parishes. John Fenderson Lumber also had a sizeable establishment in the area. The wooded areas attracted people from both the Beauce and Matane regions. Settlers, however, felt that the Valley was destined to become an agricultural region. Settlement of the Valley is a good example of the "call of the land" promoted by the clergy, for whom only farming was important. This dictum filled the settlers' hearts with (often false) hope. According to Closse (1928), the Guide du Colon, 1927 edition, mentions that the soil of this area offered all the advantages of the very best agricultural regions. However, the Valley had better potential for forestry and was eventually settled because of its forest resources, despite the clergy's insistence.

Perron (1984) wrote that Quebec agriculture which, since the end of the wheat-growing era (in the mid-19th century), has been searching for its direction, is launching massively into dairy production. This corresponded well with the farmers' requirement, namely obtaining a regular, "low-risk" income. In Séguin's view (1984), dairy production permitted Quebec farmers to increase their productivity and raised farming to a new level of commercialization. In the Gaspé, the commercial hub of dairy production is located in the Valley, which, in 1981, had the largest number of farmers (1,460).

In the second half of the nineteenth century, railway development helped to settle land in the interior. Extension of the railway line to Rivière-du-Loup in 1859 and construction of the Intercolonial as far as the Baie des Chaleurs in 1876, and of the Transcontinental in the county of Témiscouata to the west of the region in 1921, facilitated settlement and economic development based on forest products.

Bélanger et al. (1981) report that in 1920, the cod industry was in difficulty. This crisis in the cod sector is explained as follows: there was less demand for fish, increasingly strong competition, and technological and communications developments were adding new requirements. Physical and economic constraints forced Gaspé's population to diversify its activities. A number of coastal fishermen became involved in other activities such as agriculture, forestry or public works. Agricultural activity basically involves scratching a family's subsistence from a few hectares when fishing or lumbering was poor. Thus, crops were planted out of necessity. Furthermore, government assistance gave priority to the fisheries program. Government financial assistance facilitated modernization of the fishery sector and the creation of new markets. Thus, the eastern part of the region turned to this sector.

Agricultural progress was always slow in eastern Quebec, and this was especially true in the Gaspé region. Between 1931 and 1961, the maximum improved area was in the county of Matane and consisted of about 910 square kilometres (in 1951), that is, approximately 50% of the total farmland in the county. But a closer look finds it evident that the percentage of Gaspé land really in improved agriculture is low. In 1931, if the county of Matane was excluded, the rate fell to almost 8% in Bonaventure and 4% in Gaspé. These two counties were focusing on other, more important economic activities: forestry and, above all, fishing. Land held in "farm" holdings was often idle, or formed woodlots. Aside from forest products, which afforded supplementary income, the dairy industry was the most substantial source of income in the counties of Bonaventure and Matane. In 1939, Baie des Chaleurs farms each owned on average three cows while counties of Gaspé only had on average one cow. The importance of dairy production can be illustrated by the high number of butter factories (23) and cheese factories (4) within a 10-kilometre radius of the town of Matane in 1938. In order to feed their cattle, farmers cultivated mostly hay or oats. However, the number of dairy farms fluctuated considerably in all counties between 1921 and 1961 and then declined during the 1960s. By 1981, there were only 560 dairy farms in Gaspé, with 464 of these (83%), concentrated in the Matapédia Valley. Rotation, going from seeded crops to pasture, with grain and hay in between, prevailed for a

long time. During the 1930s, a few specialized crops such as "Gaspé peas" briefly experienced some success. Since the Depression of the 1930s, it would appear that the agricultural world of the Gaspé region has had no guiding strategy (Bélanger et al., 1981).

At the beginning of the twentieth century, several local industries such as sawmills closed down because of the lack of work. In general, the forest industry increasingly recruited seasonal manpower. Later, the forest industry experienced substantial growth with the establishment of large sawmills and finally pulp and paper companies, which centralized the forest industry. The Abitibi-Price group is one of the companies present throughout the Gaspé region.

During the 1930s, the backcountry (as opposed to the Gaspé coast) experienced a settlement movement. The clergy preached a return to the land. Each settler received about 40 hectares; half the area was cleared, while the rest was wooded. At this time, there was a complementary relationship between farming and lumbering, within an overall framework of self-sufficient living. Following this settlement movement, several parishes were established throughout the backcountry. Parishes such as Dugal and Biron, in the county of Bonaventure, are some examples. Their existence was however short. In the next chapter, we will see the recent extent of parish closures and land abandonment. In the 1930s, the counties of Bonaventure and Matapédia experienced a brief period of growth in the number of farms. Then a decline began. Operation of the copper mine at Murdochville in 1950 attracted a number of farmers, who left agriculture for the mine. During the 1950s, the number of farms in the counties of Bonaventure and Matapédia decreased by 59%. The decrease in the number of farms during the 1950s for the five counties of the Gaspé is assessed at about 7,900 farms or 79% of the total (Statistics Canada).

In 1951, the county of Matane was the most important producer of hay in Gaspé, with 50% of the area under crops. At the end of the 1950s, Matapédia's production exceeded that of Matane, with 58% of the area under crops. Statistics Canada reported the percentage production of hay for areas under crops, for each county, in 1976: Matapédia (64%), Bonaventure (61%), Matane (60%), Gaspé-West (27%) and Gaspé-East (20%). Matapédia's high production is explained by the concentration of dairy and beef cattle in the county.

Gaspé farming in the first half of the century was generally done at a self-sufficient or near-subsistence level, with little increase after the 1930s. Statistics Canada reports that the farming population attained its maximum in 1941 for the counties of Bonaventure, Matane-Matapédia and Gaspé, which included a farming population of approximately 135,000. In 1961, there was a farming population of just 44,000 for the entire Gaspé region; this represents a decline of almost 90%. The farming population in Gaspé-West declined the most after 1931, decreasing from 41,000 to 3,000 in 1961.

It is difficult, for the early 1960s, to categorize Gaspé's labour force because of the complexity of "farmer-foresters", "farmer-fishermen", etc. There were several possible permutations among the various economic activities in the region. This is a reflection of a multi-purpose economy.

Agriculture cannot be separated from either forestry or fishing.

2.6 Socioeconomic Characteristics

Employment in the various economic sectors in 1961, the year in which detailed study begins, is discussed below. In the Gaspé region, primary sector activities are very important in comparison with those of other sectors. The characteristics of the various economic sectors, as described by the Bureau d'aménagement de l'Est du Québec [Eastern Quebec Development Office] (BAEQ, 1966), appear below.

Within the primary sector, agriculture and forestry were the sectors which predominated in the Gaspé region. Matapédia had the highest proportion of manpower involved in agricultural activities (25%) and forestry (23%). In the county of Matane, forestry came first, and agriculture, second. In the counties of Bonaventure and Gaspé-East, employment was spread fairly evenly across each of the primary activities. The labour force in Gaspé-West was concentrated in mining (16%) and forestry (13%).

The secondary sector included the construction and manufacturing industries and accounted for 11% or less of the labour force in each county. Two goods actually shaped the manufacturing industry: food and beverages, and lumber and furniture. Only the county of Matane had a more diversified industrial structure. In the Gaspé region, the manufacturing sector was weakly structured and limited to a few goods. Table 2.3 shows the situation in the manufacturing sector for each county.

The tertiary sector included social, commercial and industrial services, transportation, and public services. The proportion of the labour force involved varied from 30% to 51% in the various counties. Tertiary activities in Gaspé-East employed 45% of the labour force; these activities were characterized by the seasonal nature of employment, the result of tourism. Bonaventure and Matane came next, with 40% of their labour force employed in the tertiary sector. Last were Gaspé-West and Matapédia, for which the percentage of the labour force involved was at the relatively low level of around 35%.

2.7 Conclusion

In summary, since the first settlements, primary sector activities in the region have been important. Agriculture and forestry are by far the most important activities for the Gaspé labour force. Physiographic and climatic constraints are among the factors limiting agricultural development mainly to the Valley: in 1961, the county of Matapédia had the highest level of agricultural labour force (25%). The manufacturing sector employed 44% of the labour force, mainly in lumbering. The tertiary sector was also of considerable importance to the region.

The following chapter identifies agricultural changes in the Gaspé region between 1961 and 1981. The decrease in farmland and the development of natural resources are observed and analysed. The involvement of the Société d'exploitation des ressources de la Vallée (SERV) [Valley Forest Resources Development Corporation] and agro-forestry groups constituted, until the 1980s, the major effort to achieve joint management.

TABLE 2.3

SITUATION IN THE MANUFACTURING SECTOR IN THE GASPÉ REGION, 1961

County	Proportion of the labour force	Principal secondary industry
Bonaventure	7%	lumber
Gaspé-East	12%	food processing
Gaspé-West	11%	lumber
Matane	8%	lumber
Matapédia	6%	lumber

3. CHANGES IN LAND USE

This chapter analyses changes in agricultural use in the Gaspé area between 1961 and 1981. Certain trends in farmland use are analysed, including internal changes in farming over this period. The importance of the forest sector is also discussed at the end of the chapter.

Modern agriculture is based on productivity. The need for rationalization affects remote areas like Gaspé most profoundly because they are on the extremities of the agricultural market. Statistical data call our attention to the Gaspé region, where both total farm area and area under crops have declined steadily since 1961. For the years 1961, 1971 and 1981 respectively, we find 339,017, 215,703 and 174,892 hectares of farmland. Statistics Canada data show that the greatest portion of farmland losses between 1961 and 1981 involved farm woodlots and other unimproved land, such as rocky land, natural pasture, uncultivated hayfields, unused land, and grazing land. In contrast, land under crops, improved pasture, fallow and other improved land, such as poultry yards, vegetable gardens and newly ploughed areas, were more stable. In Gaspé, fallow is relatively unimportant; its share as a proportion of total farmland was highest in the years 1961 and 1981, and even then, was scarcely 1% (Figure 3.1).

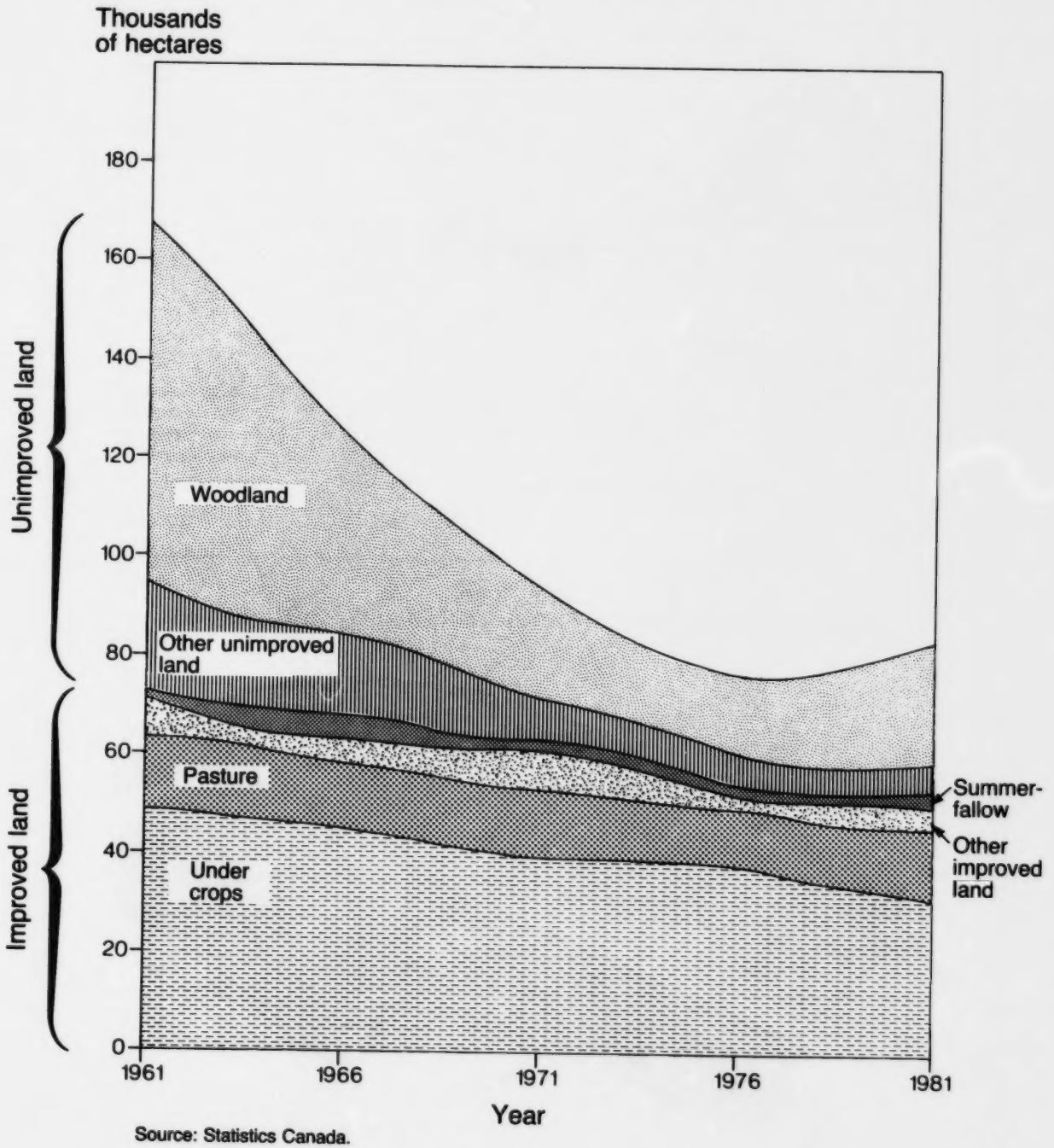
3.1 Changes in Farmland

In 1981, it was estimated that 6% of the Gaspé region was occupied by farmers (Statistics Canada). This percentage is low, but, as indicated in Figure 3.1, the region as a whole has never been predominantly agricultural, even though agriculture was important to the settled area. Since 1961, Gaspé has recorded substantial decreases in farmland, particularly farm woodlots. In total, we observe a decline of about 165,000 hectares. (For further details on the farmland in each standardized area, see Table 1, Annex 3). The greatest absolute decrease occurred in the Matapédia Valley, that is, in the area where, historically, most of the farmland was located (Figure 3.2). The absolute loss for this area was more than 30,700 hectares over twenty years; the greatest decrease occurred during the first decade of this period. Furthermore, the Causapscal study area, in the south of the Valley, shows a major decline, which amounted to about 10,000 hectares over the twenty-year study period. The highest percentage losses usually occurred in areas which had little farmland in 1961. This is true of the unorganized territories of Matane-Matapédia, Bonaventure, Gaspé-West and Gaspé-East, in which a large decrease in the agricultural land use occurred, resulting in a near total departure of agricultural activity from the area. The area around the Cap-Chat River, in the county of Matane, as well as an area to the west of the Bonaventure county and the unorganized territory of Gaspé-East lost all of its farmland (Figure 3.3). This region is one in which the BAEQ programs had a direct impact on land use. The lowest percentage of land abandonment is to be found in the Valley, and near the town of Matane, indicating the concentration of commercial farming. Chapter 5 develops in greater detail the various causes for the decrease in farmland.

In contrast to the long period of consistent decline, between 1976 and 1981, regional trends were somewhat more varied (Figure 3.4). The contraction of farmland experienced since

FIGURE 3.1

ABSOLUTE CHANGE IN FARMLAND FOR THE GASPÉ REGION BETWEEN 1961 and 1981



Source: Statistics Canada.

FIGURE 3.2

CHANGE IN FARMLAND BETWEEN 1961 AND 1981

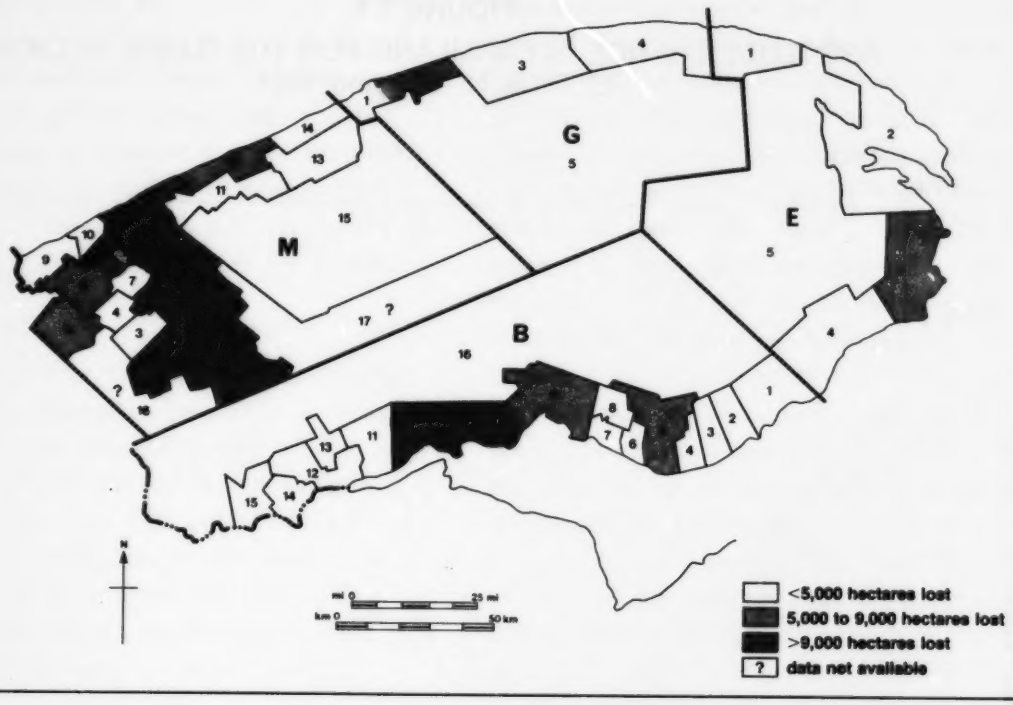


FIGURE 3.3

PERCENTAGE CHANGE IN FARMLAND BETWEEN 1961 AND 1981

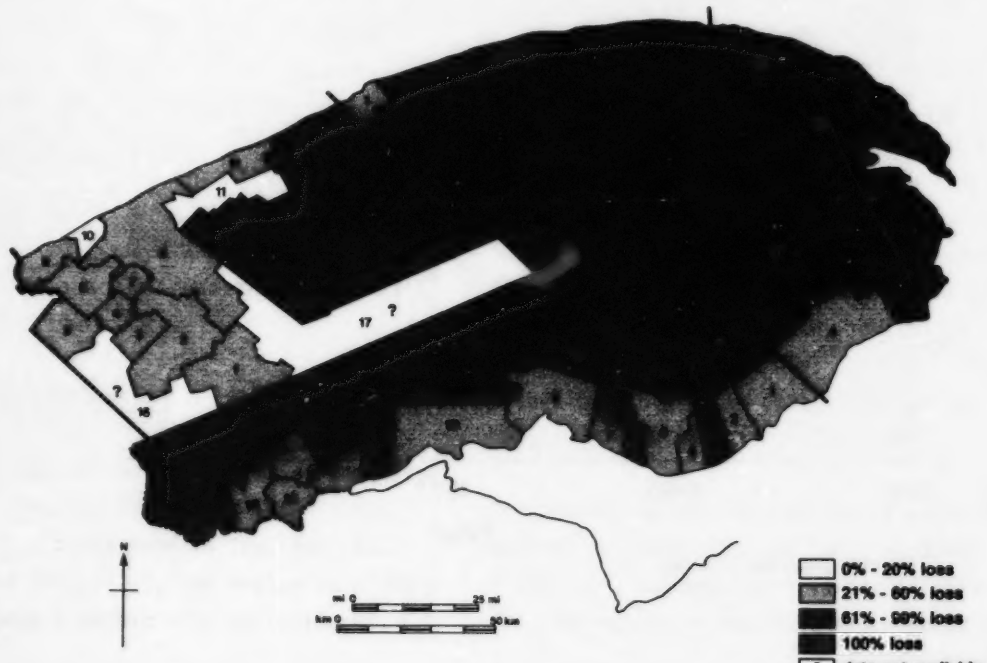
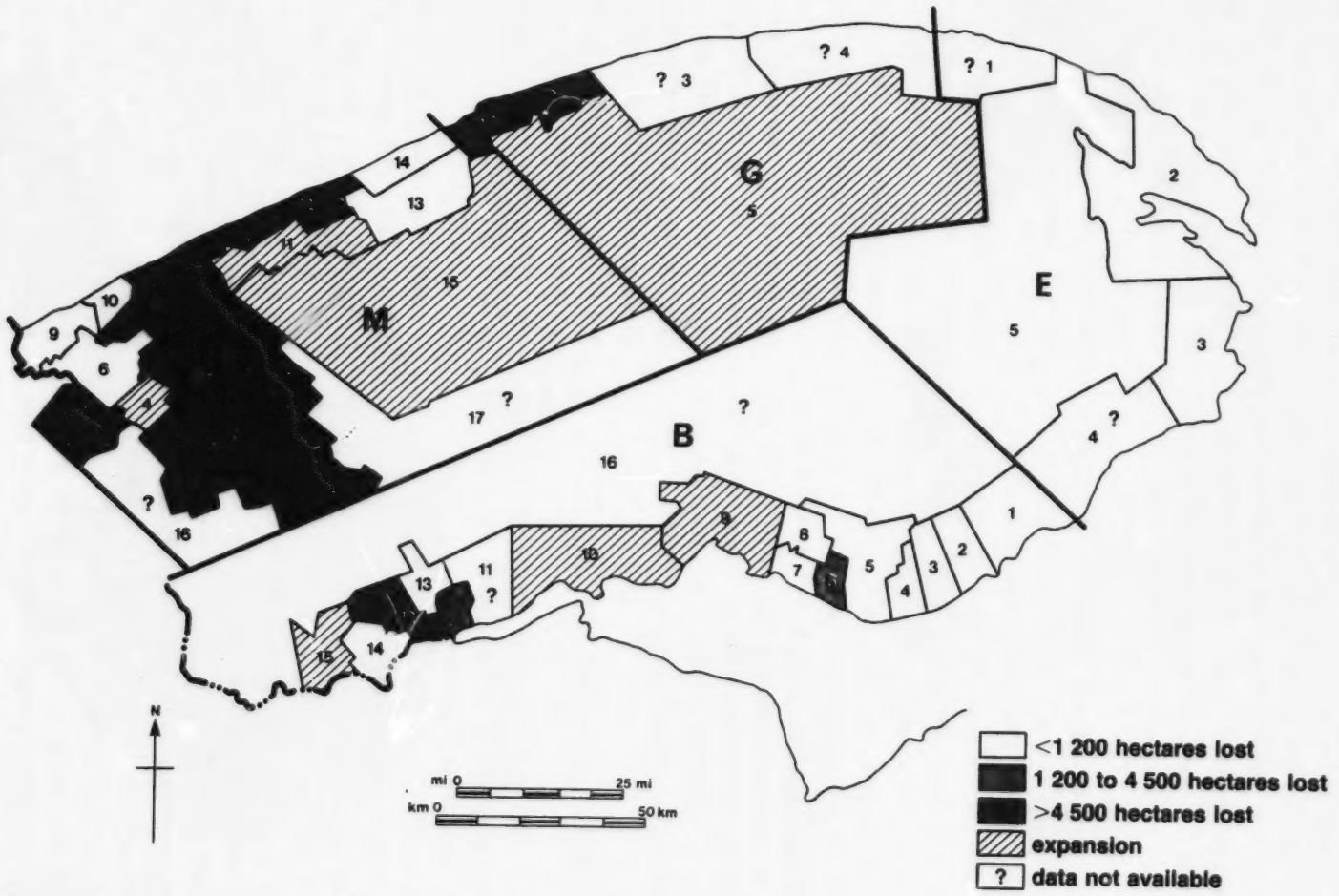


FIGURE 3.4

ABSOLUTE CHANGE IN FARMLAND BETWEEN 1976 AND 1981



1961 slowed in certain areas. The Valley continued to experience high losses, involving a further 11,500 hectares. On the other hand, there were small reversals in certain areas, specifically parts of Bonaventure County and northern Matane, with a return of farms.

Since 1961, the greatest decrease in agricultural land use has occurred in the Valley. On the other hand, the Valley remained the focus of regional agriculture in 1981, with the highest concentration of farmland. More specifically, the Amqui area has the largest area devoted to agriculture, namely 28,000 hectares. There are two other large agricultural areas to the north of Amqui and to tne east of the Valley, with 21,975 and 12,100 hectares respectively. These three areas in the Valley constitute a consolidation of the agricultural industry.

3.2 Changes in Improved Land

Since 1961, the trend with respect to improved land use in the Gaspé region has differed from that with respect to farmland as a whole (Figure 3.5). Generally speaking, we see a decrease in improved land. For the 20 year study period, 38% of improved land were left in production compared with 48% of all farmland. The percentage of farmland which was improved grew from 42% to 52% during this period. These trends are similar to the Canadian trends analysed in the McCuaig and Manning study (1982). The ratio of improved land to farmland has increased regularly in Gaspé as a whole (Figure 3.5). There are local exceptions, however: a particular case occurred to the west of the Valley, at Baie-des-Sables, where a decline in improved land compared to farmland occurred between 1961 and 1981, that is, improved land declined more than farmland. During the same period of time, one region to the east of the county of Matapédia lost all of its improved land (Figure 3.6). Two areas of the Valley (Amqui and Matane) account for the largest total losses of improved land, the result of farm consolidation. (For further details on improved land in each standardized area, see Table 2, Annex 3).

Since 1961, the decrease in improved land has occurred differently in each region: 1) in the two Gaspé counties, there were significant percentage decreases, that is, over half of the improved area was lost from each standardized area; 2) in the Valley region, the decrease in improved land was the greatest, but, despite this, it was the largest and most viable agricultural area in 1981; 3) the county of Bonaventure indicated mixed trends in the Bonaventure, New-Richmond and Carleton areas where a large (2,000 hectares) decrease in improved land occurred, but in the other areas, trends were not so clearly defined.

A comparison between agricultural capability and decreases in improved land draws attention to certain areas. In 1961, Cap-Chat, Ste-Anne-des-Monts and Percé had more improved land than they did class 1 to 3 farmland (Figure 3.7). The large subsequent decrease in improved land, particularly at Ste-Anne-des-Monts, where the number of hectares decreased by 2,222 between 1961 and 1981, is severe. Figure 3.8 shows the changes in area of improved land over the twenty-year period relative to the theoretical (class 1 to 3) cropping capability. A rough balance occurred mainly around the Valley and along the coast. In the counties of Gaspé, at Cloridorme and Marsoui, and in the

FIGURE 3.5

CHANGE IN IMPROVED AREA BETWEEN 1961 AND 1981

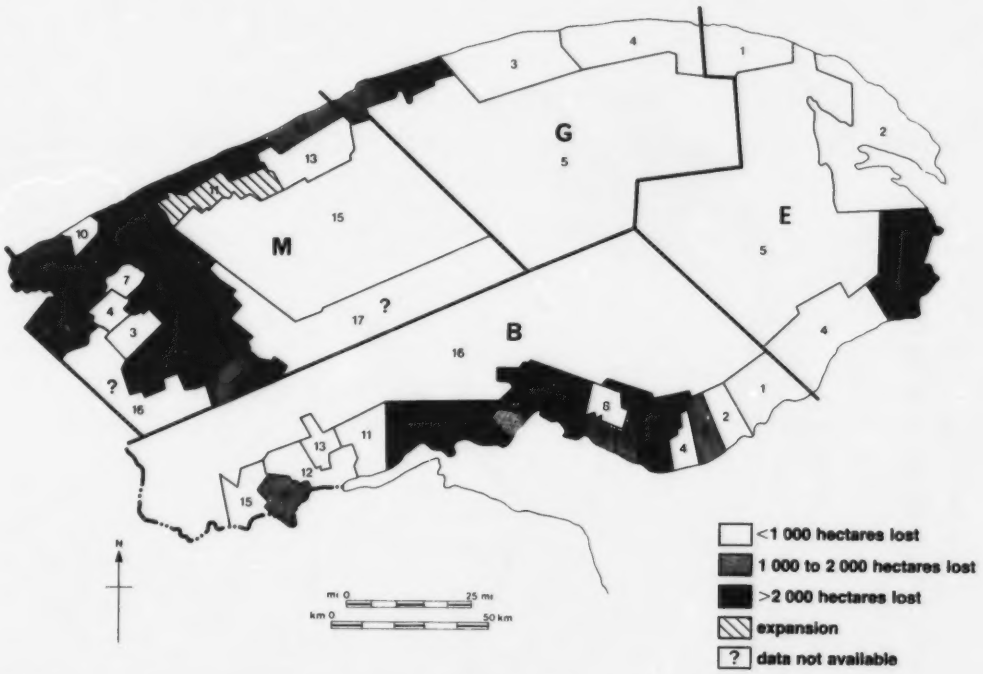


FIGURE 3.6

PERCENTAGE CHANGE IN IMPROVED AREA BETWEEN 1961 AND 1981

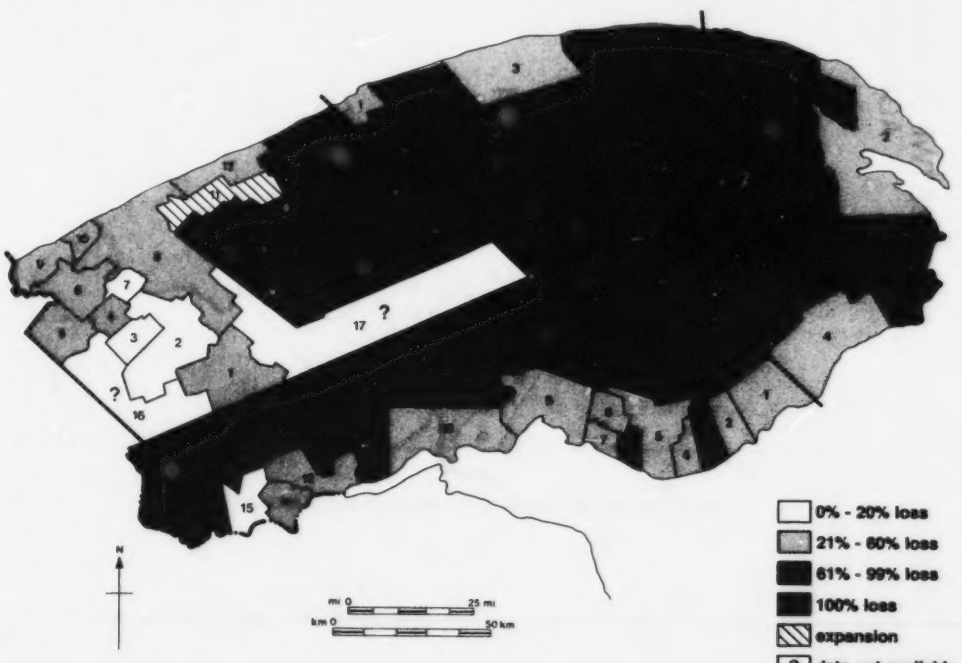


FIGURE 3.7

RATIO BETWEEN IMPROVED LAND IN 1961 AND GOOD QUALITY AGRICULTURAL LAND (CLASSES 1 - 3)

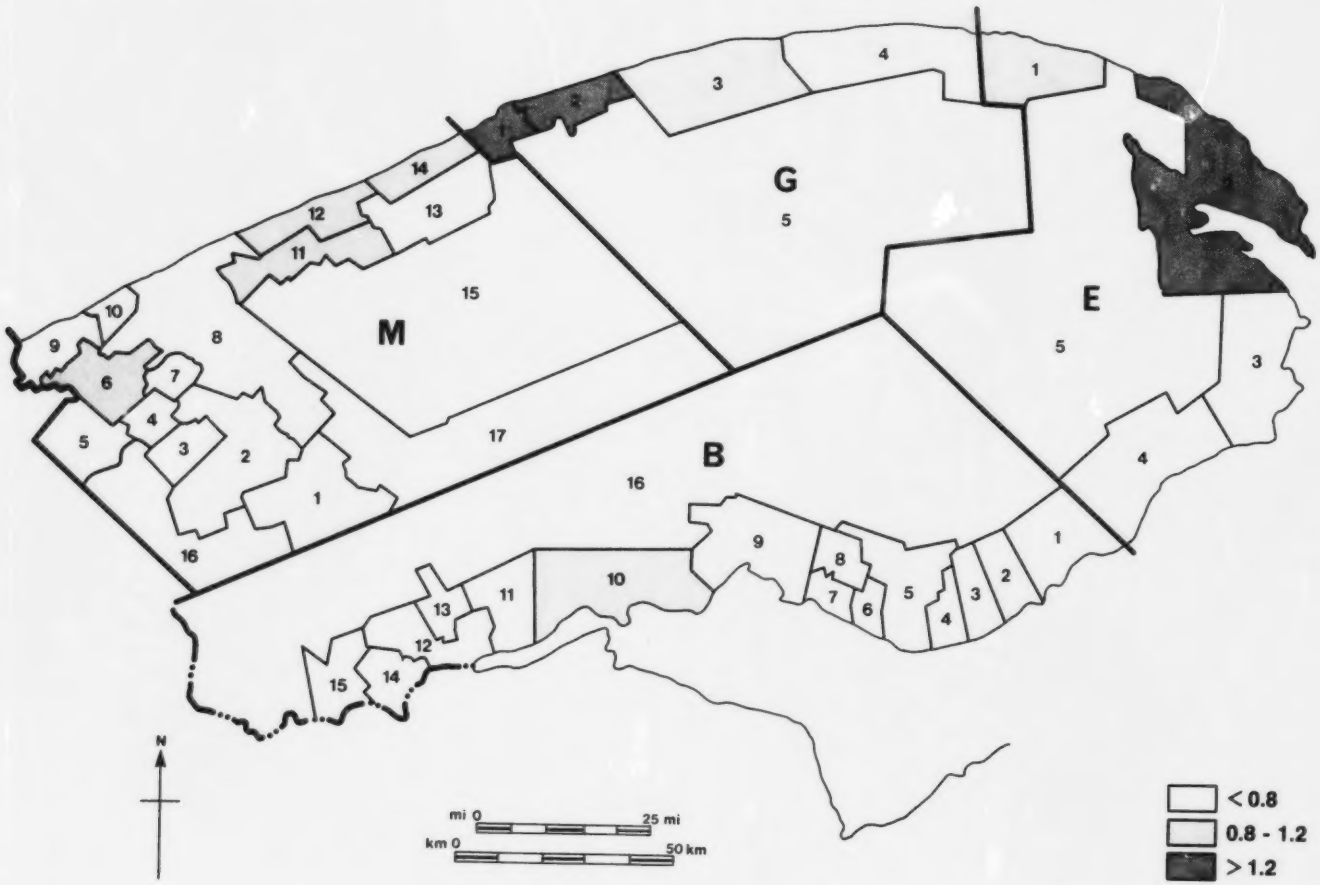
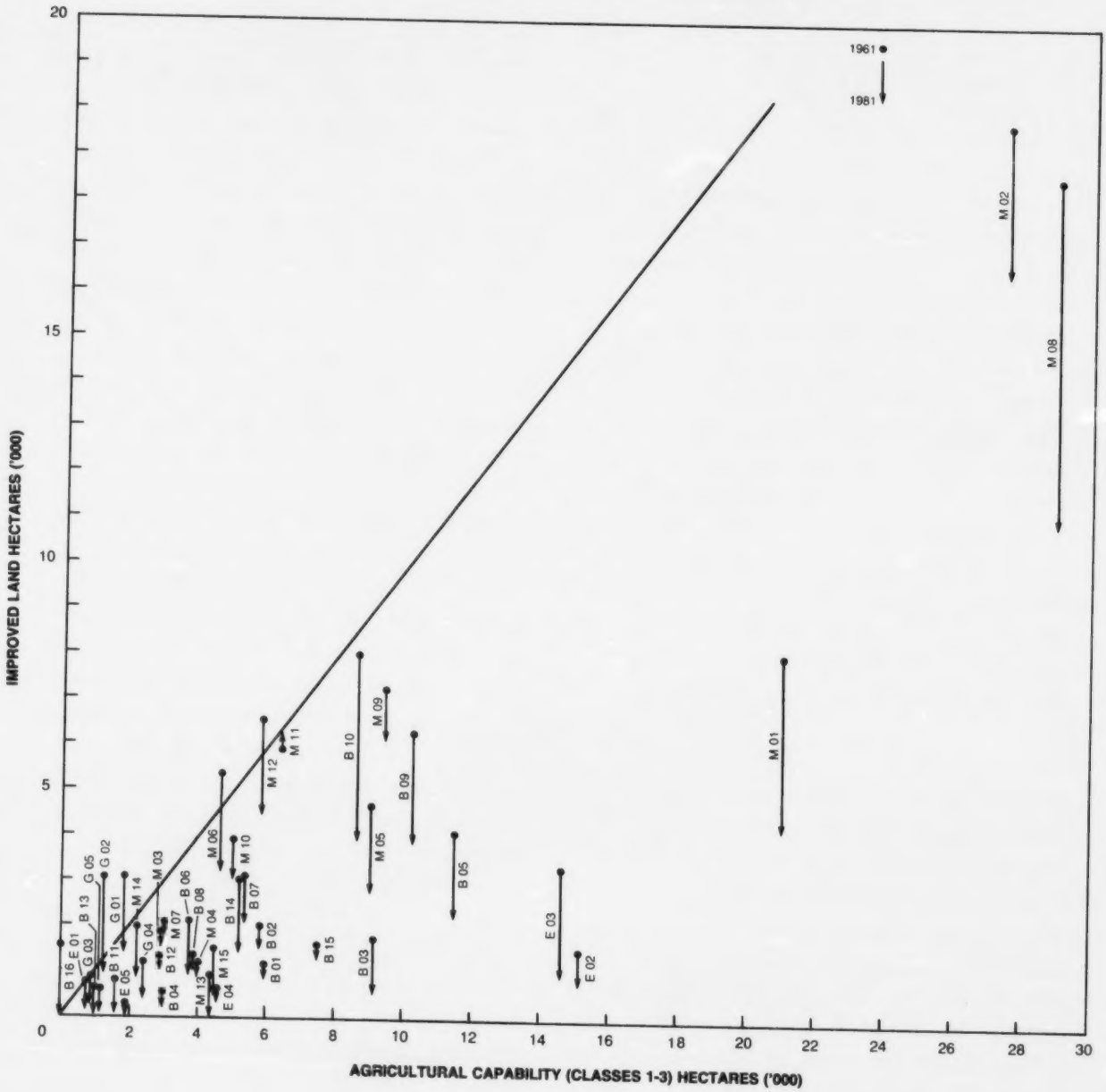


FIGURE 3.8

CORRELATION BETWEEN GOOD QUALITY AGRICULTURAL LAND (CLASSES 1 - 3) AND IMPROVED LAND, 1961 AND 1981



Bonaventure county, at Carleton, the same situation occurs. A decrease of 12,478 hectares of low-capability farmland was noted in the eastern part of the region where land with physical capability for improved agriculture was lost from farming use.

3.3 Changes in Land Under Crops

In Chapter 2, the physical and climatic constraints which limit agricultural production to the Baie des Chaleurs region and the coast of the Saint Lawrence were noted. An examination of the decrease in sowed and cultivated land in the Gaspé region (particularly in hay and oats for forage) shows a close relationship to the overall regional agricultural trend. The various crops surveyed since 1961 indicate the importance of the hay crop to farming operations. The hay crop is the dominant one in all the counties, particularly Bonaventure, Matane and Matapédia. Dairy and beef cattle are fattened using hay ensilage. The hay and oats crops are used for regional consumption. (For further details concerning land under crops in the Gaspé counties, see Table 3, Annex 3).

Analysis of the relative economic value of grain versus hay is not an objective of this part of our study. We wish to emphasize, however, that hay is the principal local source of food for dairy and beef cattle.

Between 1961 and 1971, the greatest overall decrease in land under crops occurred in the Valley, around the towns of Matane and Causapscal, where, in 1961, the largest area under crops was also to be found. Significant decreases also occurred on the periphery of the Valley, at Ste-Félicité, Percé, New Richmond and Carleton. (For further details on farmland under crops for each standardized area, see Table 4, Annex 3). Only one area, in the east of the Valley, experienced a slight increase. But the period since 1971 saw changes in this trend. Over the 1971-1981 period, farmland in several areas underwent positive changes (Figure 3.9). The increase in land under crops was greatest in the counties of Bonaventure (845 hectares) and Matane-Matapédia (2,680 hectares). In the Gaspé counties, specifically the unorganized territories of Gaspé-West and Percé, small gains of 8 and 54 hectares respectively were observed, indicating a slight expansion of land under crops in these two counties.

Since 1976, there have been similar positive regional trends, except for a few areas. Figure 3.10 shows, for the second half of the 1970s, the greatest decrease around the towns of Matane, Causapscal and in the west of the Valley, in addition to the agricultural capital of Amqui. In comparison with the 3,457-hectare net loss in these areas during the whole 1971 to 1981 period, a regional gain of 2,755 hectares was observed. Bonaventure County and the Matane-Matapédia area recorded gains of 1,044 and 2,580 hectares respectively. Some areas had completely lost their small areas under crops and improved pasture by 1981: these included the unorganized territory of Gaspé-East, a forest area to the west of Bonaventure County, and St-Paulin-Dalibaire in the county of Matane. This confirms the continuing movement of the Gaspé region's agricultural industry toward regional specialization between 1976 and 1981.

The trends observed with respect to improved land and land under crops enable us to verify

FIGURE 3.9

ABSOLUTE CHANGE IN LAND UNDER CROPS BETWEEN 1971 AND 1981

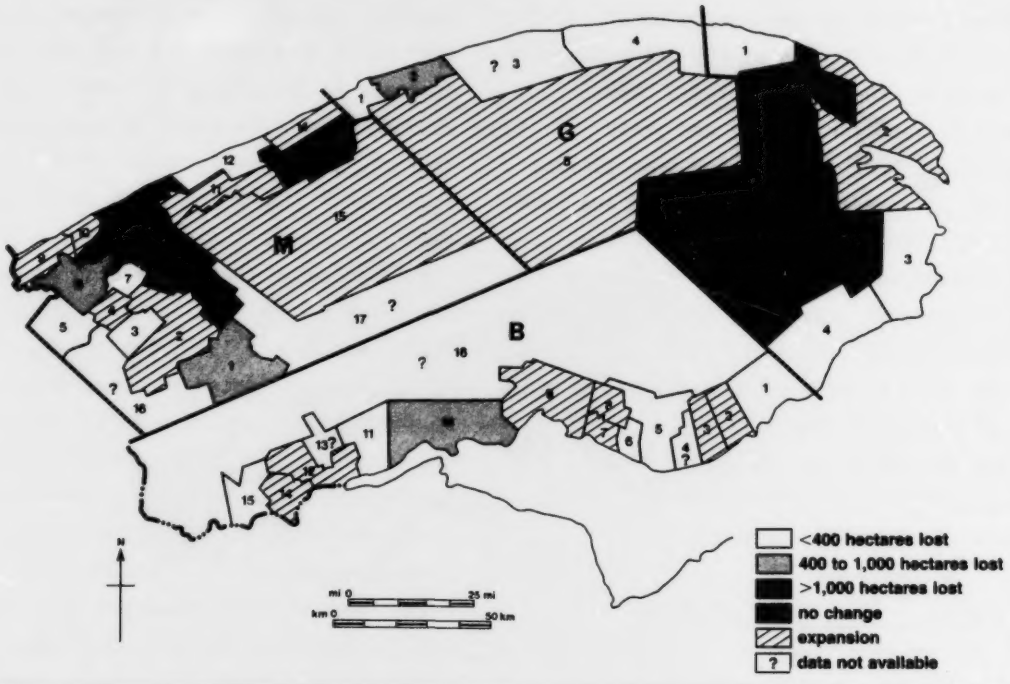
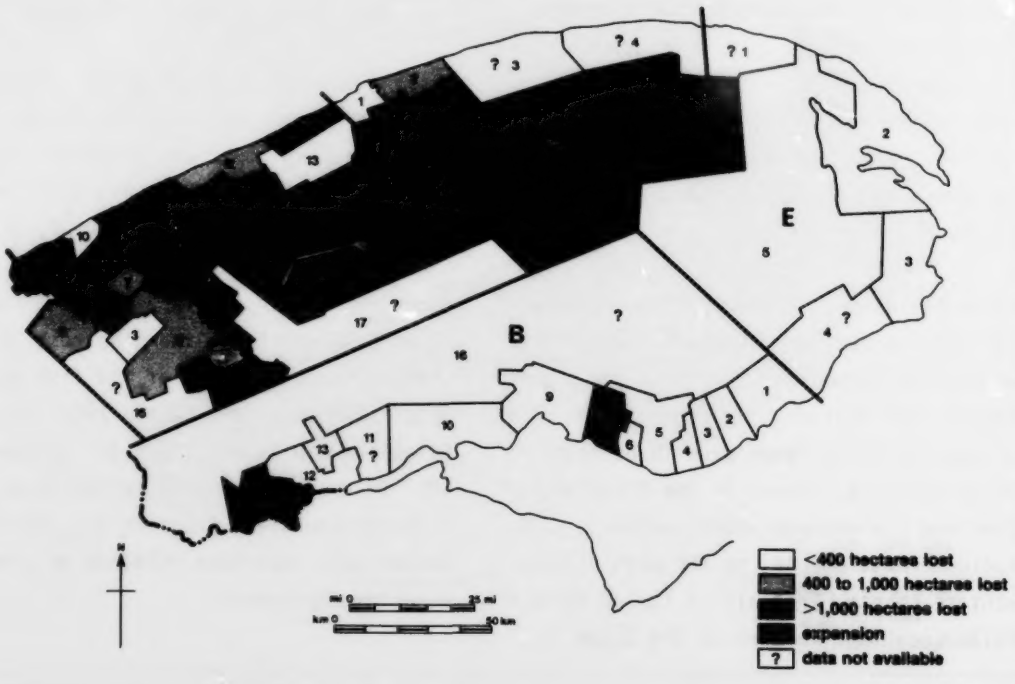


FIGURE 3.10

ABSOLUTE CHANGE IN LAND UNDER CROPS BETWEEN 1976 AND 1981



the dynamic nature of the agricultural industry in general, and of the dairy industry in particular, the latter being a major consumer of land for pasture and grain cultivation. During the period from 1961 to 1981, the decreases in improved land and land under crops were similar. In 1961, the average improved area on Valley farms was about 35 hectares. By 1981, all Valley areas had almost doubled, with the average area improved being between 60-70 hectares. In all parts of the Gaspé, the area of improved land per farm was larger in 1981 than in 1961, a product both of consolidation and of abandonment of smaller farms.

3.4 Changes in the Number of Farms

Figure 3.11 shows that over the twenty-year period, the greatest number of abandoned farms (over 200) were to be found in the Valley, at Carleton and Percé. All areas of the county of Gaspé-East lost more than 80% of farms (Figure 3.12). The same level of loss was experienced at Les Méchins, in the county of Matane. In Bonaventure county, Pointe-à-Lacroix showed major losses of farms. The smallest losses of farms (50 or less) were west of the town of Matane, in the western part of Bonaventure county, and in Marsoui, in the county of Gaspé-West.

St-Paulin-Dalibaire, in the county of Matane, and the unorganized territories in Gaspé-East showed total disappearance of their farms over the twenty-year period. The highest percentage losses of farms were to be found in the Gaspé counties, except in the Chandler, Cap-Chat and Ste-Anne-des-Monts areas. St-Fidèle-de-Ristigouche, to the west of Bonaventure county, lost all of its 42 farms. Generally speaking, farmers in the Gaspé counties are subsistence farmers; it is this type of farming which has seen the extreme decrease in the number of farms. Such farmers abandon farming in order to seek other sources of income, such as fishing. Most farmland is abandoned as there is little market for rural land. (For exceptions see Chapter 5). It should be noted that the region around Matane had a low percentage loss over the study period and, since 1976, the area to the north of Matane experienced an actual increase of 22 farms (Figure 3.13). In the Valley and in the western part of Bonaventure county, agriculture based on dairy production has survived and consolidated: between 1976 and 1981, the decrease in the number of dairy cattle was low, and there was even a gain of 24% in the Valley region. Government intervention is partially responsible for these changes; chapter 5 explains in more detail the impact of the BAEQ on the closing of 87 parishes and on consolidation of the dairy industry (Carré and Vaillancant, 1982).

3.5 Importance of the Forest Sector

Gaspé's economy is based on the exploitation of natural resources, and the forests are among the most important of these. In 1981, for the counties under study, the involvement of the labour force in the forest sector was considerable, involving 50% of total jobs in secondary sector (Table 3.1). The county of Gaspé-East was lower than the rest in the primary sector because of its fish products processing industry. Since 1961, only Matapédia county has shown an increase (almost 10%) in the labour force in the forest sector. In other counties, the tertiary sector has become more important relative to primary industry employment.

FIGURE 3.11

CHANGE IN NUMBER OF FARMS BETWEEN 1961 AND 1981

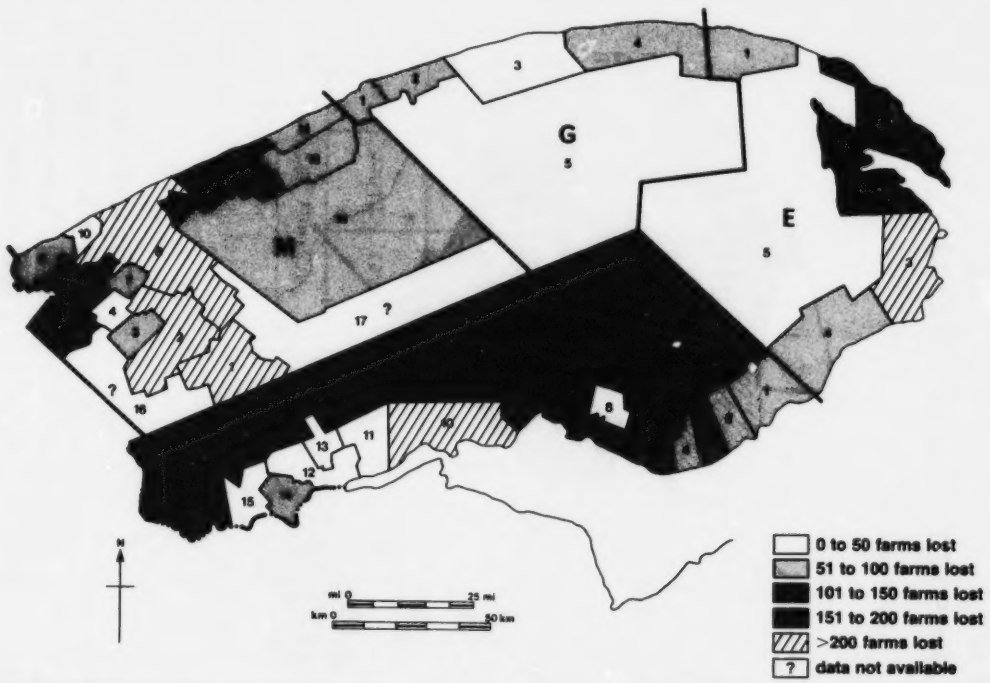


FIGURE 3.12

PERCENTAGE CHANGE IN NUMBER OF FARMS BETWEEN 1961 AND 1981

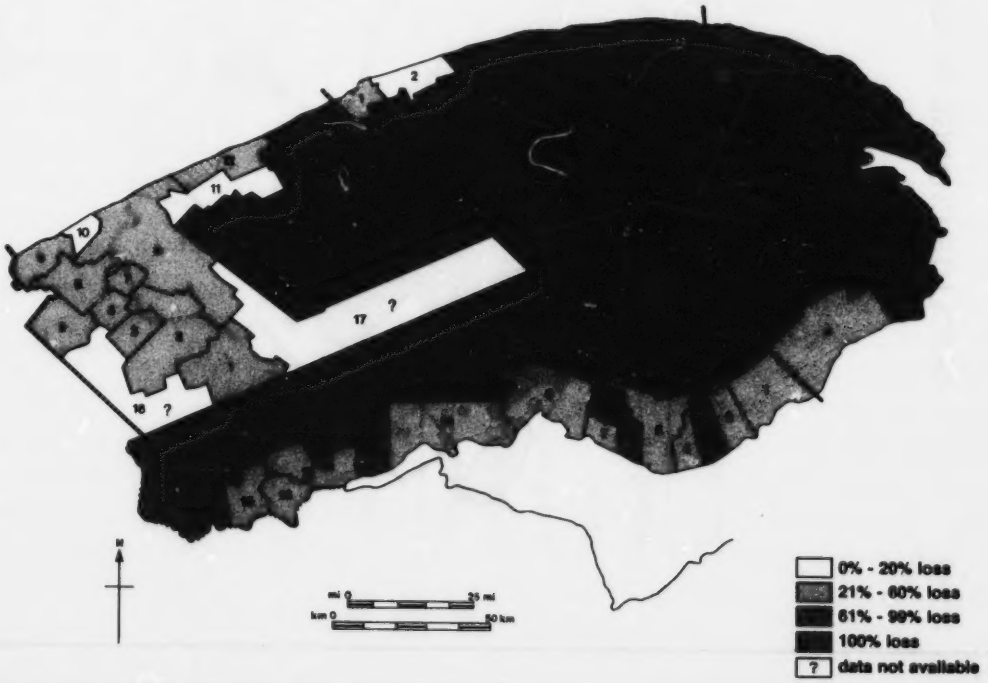


FIGURE 3.13

ABSOLUTE CHANGE IN NUMBER OF FARMS BETWEEN 1976 AND 1981

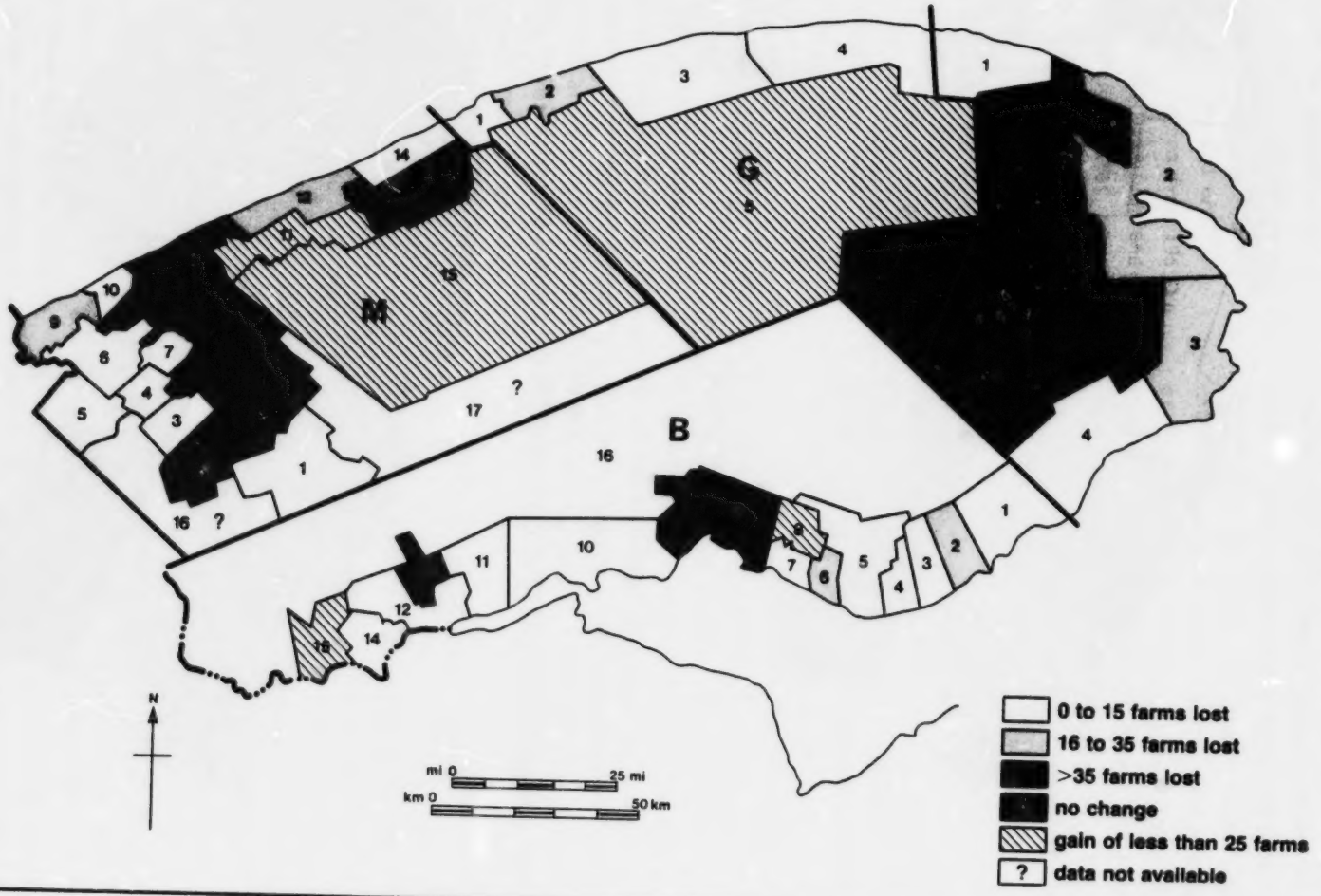


TABLE 3.1

PERCENTAGE OF LABOUR FORCE BY ECONOMIC SECTOR, 1981

COUNTY	Primary sector				Secondary sector			Tertiary sector		
	Agriculture	Forestry	Other	Total	Lumber	Other (food processing)	Total	Services	Other	Total
Bonaventure	1.0	4.5	0.5	6.0	19.0	7.0	26.0	15.0	53.0	68.0
Gaspé East	0.2	0.3	0.5	1.0	9.0	23.0	32.0	33.0	34.0	67.0
Gaspé West	0.1	10.0	45.9	56.0	0.7	2.3	3.0	19.0	22.0	41.0
Matane	0.3	11.0	1.7	13.0	6.0	10.0	16.0	28.0	43.0	71.0
Matapédia	2.0	6.0	0.0	8.0	15.0	11.0	26.0	24.0	42.0	66.0

Source: Statistics Canada

The region's total area is 30,000 square kilometres; provincial public forests under production cover 19,769 square kilometres, that is, more than half the total area. Federal, public forests represent 274 square kilometres and include Forillon National Park and indian reserves. Private and intramunicipal forests represent 32% of forest land.

The organizational structure of the privately owned forest sector is among the most forward-looking in the province of Quebec. The first Quebec forest co-operative began at the beginning of the century, in the Valley. Today, the region has seven forest groups or companies which manage privately developed forest areas. This is linked to government funding for forestry research, which became available at the beginning of the 1970s to such groups and which allowed forestry development in Gaspé to progress. Figure 3.1 shows that farm woodlots stopped declining in the early 1970s.

Forest development activities are particularly vigorous in the Matapédia Valley. At that time, forestry projects involved 150 private lots in the region. Ten years later, we find there were 975 lots, an increase of 85%. In the Valley, the area of forest development, particularly private intramunicipal forests, totalled 303 square kilometres. The Valley was the most developed region in Gaspé, and a model for Quebec in this respect.

3.6 Conclusion

Gaspé's agricultural community is divided into two distinct regions: the Valley, where agriculture is specialized, and the remainder of the region, where it is diversified and generally of limited scale. The Gaspé counties have lost over 60% of their farmland since 1961, and the fishery and forest industry has become relatively more important. As indicated in Chapter 2, however, much of the Gaspé region has a low potential for agriculture. In the Valley, dairy farms have been consolidated; in Gaspé-East and Gaspé-West, the fishing industry has been developed. As we shall see in more detail in Chapter 5, the BAEQ and DREE have played an important role.

Exploitation of privately owned forests has been an integral part of the Gaspé's economy ever since settlement began, but wise management of private forests has scarcely begun. Nevertheless, we note that a positive change has occurred since the end of the 1970s. The comparative dynamism of the Valley population has helped the regional economy to progress both in agriculture and in forest development. The chapter which follows examines changes in agricultural and forest land use since 1961, in two specific case study areas.

4. CASE STUDY: CARLETON AND CAUSAPSCAL AREAS

This chapter examines the decrease in agricultural and forest land in the Carleton and Causapscal areas between 1961 and 1981, and its new use in 1981. The chapter proceeds to analyze the quality of the abandoned land: the largest concentrations of high capability farmland (classes 2 and 3) which was abandoned could be found near the Nouvelle River, in the Carleton area, and around the urban area of Causapscal. These two areas contained over half of the abandoned high quality land. The establishment of the Société d'exploitation des ressources de la Vallée de la Matapédia (SERV) [Valley Resources Development Company] is one example of local interest in land management. We analyse its involvement in land planning generally and particularly in new farmland uses in the Causapscal study area. In the long term, lumber is seen to be the resource to develop; this has been SERV's goal in the 1980s.

This section of the study is based on analysis of local characteristics of two representative areas in the Gaspé region. These study areas have been identified using Statistics Canada data. This data, interviews with local and provincial government officials, and a sample of 25 farmers in the Carleton area are the base for the case study analysis. This analysis is complemented by a questionnaire on real property distributed to all farmers in the Causapscal area by the Union des producteurs agricoles (UPA) [Agricultural Producers' Union]. In addition, changes in land use in these areas are identified through the interpretation of aerial photos taken in 1961 and 1981.

4.1 Agricultural Changes

The 25 Carleton area farmers (28% of the total) selected at random and interviewed, and the 60 farmers interviewed in 1981 by UPA in the Causapscal area (90% of the total) allow us to establish a detailed profile of agricultural change. These interviews indicate that the maintenance of subsistence farms is a result of the necessity for many to till the land as their only option. Forestry, particularly the large paper companies (New-Richmond, Chandler) and the sawmills, is frequently a reason for abandoning farming for employment in an activity which provides a more stable income.

During the 1960s the need for competitive farm modernization dealt a fatal blow to a good number of farmers, who abandoned agriculture. Frequently, farming did not provide the main income, and people turned to other activities such as forestry, government employment, etc. Their choice usually varied in relation to market demand, the economic situation, natural resources (climate, soils), and levels of support from government programs. In addition to requiring a large financial investment, modern farming demands farm consolidation, which cannot but lead to a smaller number of farmers; that is, those most able to adopt new techniques. Other more traditional farmers (that is, the majority), since they do not wish to go into debt and/or prefer the traditional lifestyle, use farm machinery which permits self-sufficiency but no, or few, commercial activities. It appears that fear of going into debt, individualism, plus lack of information cause at least as much, if not more, damage than climatic or physical constraints to the more extensive adoption of modern techniques.

Between 1971 and 1981, the lack of agricultural renewal became increasingly evident. Young people left to live elsewhere. In the Carleton area, unused property bordering on farmland was not for sale, thus making it difficult to increase stocks of cattle. Although lots were unused many owners preferred not to sell their property which was a symbol of their roots and a form of insurance. This made the agricultural situation difficult for these who wished to expand.

4.2 Agricultural Contraction

The Carleton and Causapscal areas represent most of the land use trends within the Gaspé region (Table 4.1). Between 1961 and 1981, both the number of farms and farmland itself decreased in each area. In 1961, the per-farmvalue of buildings and land was, respectively, $6,813 and $7,160. In 1981, the value increased (to $64,076) in the Carleton area because of a large reduction in the number of farms (70% less), farm consolidation, and changes in the farm business. The Causapscal area showed an average value of $55,330, and saw changes similar to those in the Carleton area.

In the two study areas, most abandoned farmland was still unused in 1981 (Figures 4.1 and 4.2). Unused land represents 50% in Carleton and 72% in Causapscal of total losses. Reforestation of 316 hectares of abandoned farmland has occurred, principally in the former parishes of Biron, to the north of St-Omer, and Dugal, to the north of Nouvelle, mainly due to government programs. Following the closing of these parishes, government assistance facilitated reforestation, which has increased marginally around these areas since 1961.

In each of the two areas, there are two main types of economic activity: dairy production and multi-type seasonal work connected with the forestry and fishing industries. Dairy production has changed greatly since the 1960s. The dairy herd is decreasing, but dairy production is increasing in both study areas. For example, between 1966 and 1976 dairy production almost doubled; in 1981, average per-farm production was 580,000 litres of milk. From 1961 to 1981 the average number of dairy cattle per farm in the Causapscal area remained firmly constant growing from 25 to 29. In contrast, in the Carleton area, the average number of cows per farm diminished from 50 to 27. Between 1961 and 1981, the total number of beef cattle also decreased significantly in both study areas and in the Gaspé as a whole; the Carleton area saw a decrease from 2,408 to 775 (68%); the Causapscal area had a decrease from 2,603 to 229 beef cattle (91%). Beef production fits very well with other seasonal activities, but only with small herds. While beef development has been encouraged over the past five years through the provision of loans for cattle production by the provincial Crédit agricole, there has been little evidence of growth.

4.3 Part-Time Farming

Part-time farming involves more than 60% of the farmers, and is therefore important in the areas under study, as demonstrated by the following example which falls within the framework of a multi-type local economy. Since 1970, a part-time farmer living in Escuminac has been working as a mechanic outside town. He has a herd of 20 beef

TABLE 4.1

AGRICULTURAL CHARACTERISTICS OF THE CARLETON AND CAUSAPSCAL AREAS AND THEIR RESPECTIVE COUNTIES (LAND AREA IN HECTARES) BETWEEN 1961 and 1981

		Counties of Matane-Matapédia		Bonaventure County	
	Region	Total	Causapscal Area	Total	Carleton Area
Farmland					
1961	339 018	196 710	20 394	103 259	18 355
1981	174 895	118 972	10 734	44 715	9 529
% of farmland lost	-48%	-39%	-47%	-57%	-48%
% of improved land lost 1961-1981	-40%	-29%	-48%	-46%	-31%
Number of farms					
1961	6 118	2 925	274	1 909	301
1981	1 495	851	66	477	89
% of farms lost	-76%	-71%	-76%	-75%	-70%
Average area of farms					
1961	55	67	74	54	50
1981	117	140	163	94	107
Number of cattle					
1961	41 045	23 009	2 603	12 528	2 408
1981	8 290	3 121	229	3 960	775
Number of dairy cows					
1961	34 003	22 814	2 484	8 211	1 305
1981	18 562	14 796	1 098	2 497	688
Number of dairy farms*					
1961	1 245	980	98	216	26
1981	560	464	37	85	25

* 1961: sales of $1,200 and over.
1981: sales of $2,500 and over.

Source: Statistics Canada

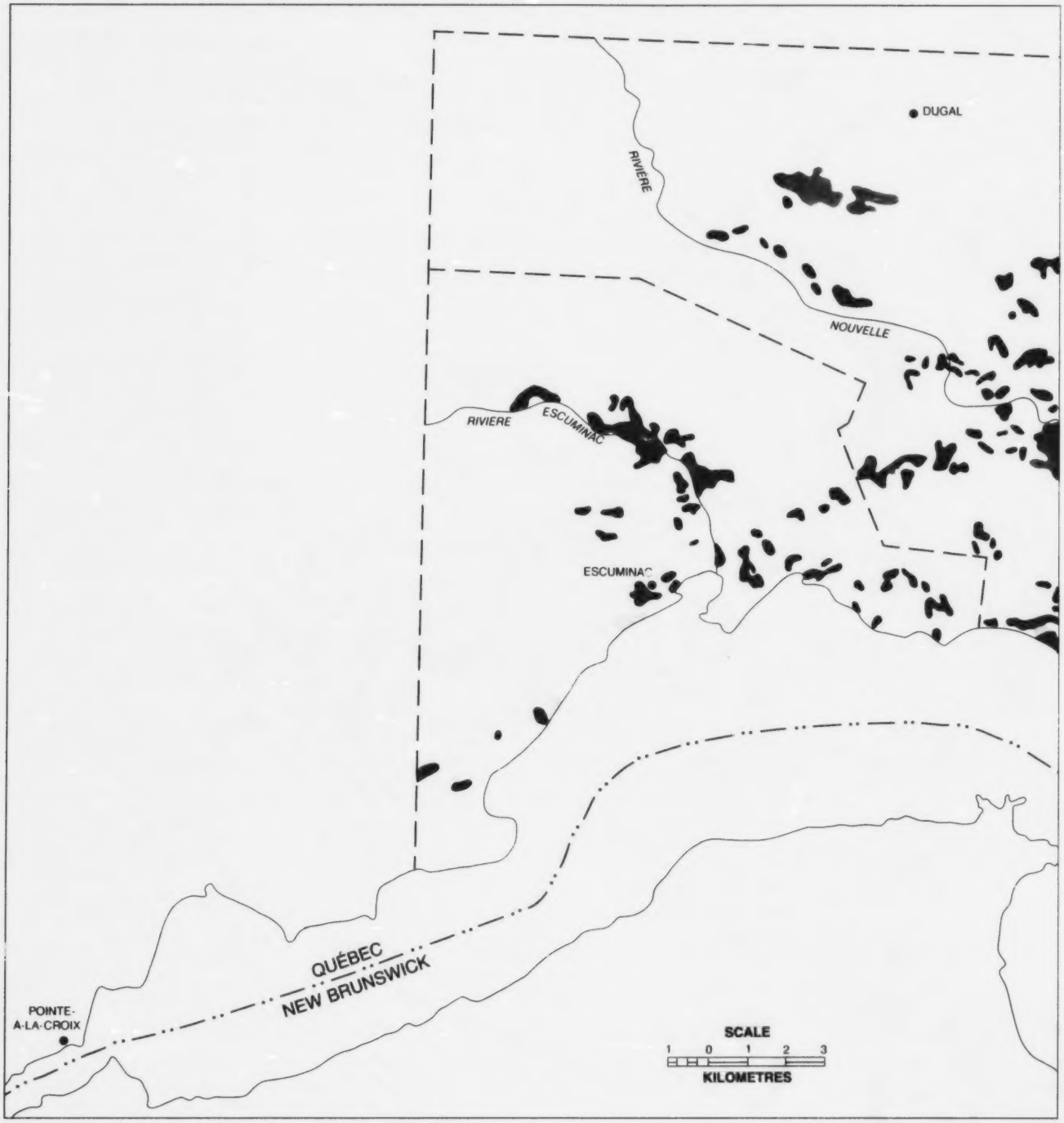
FIGURE 4.1

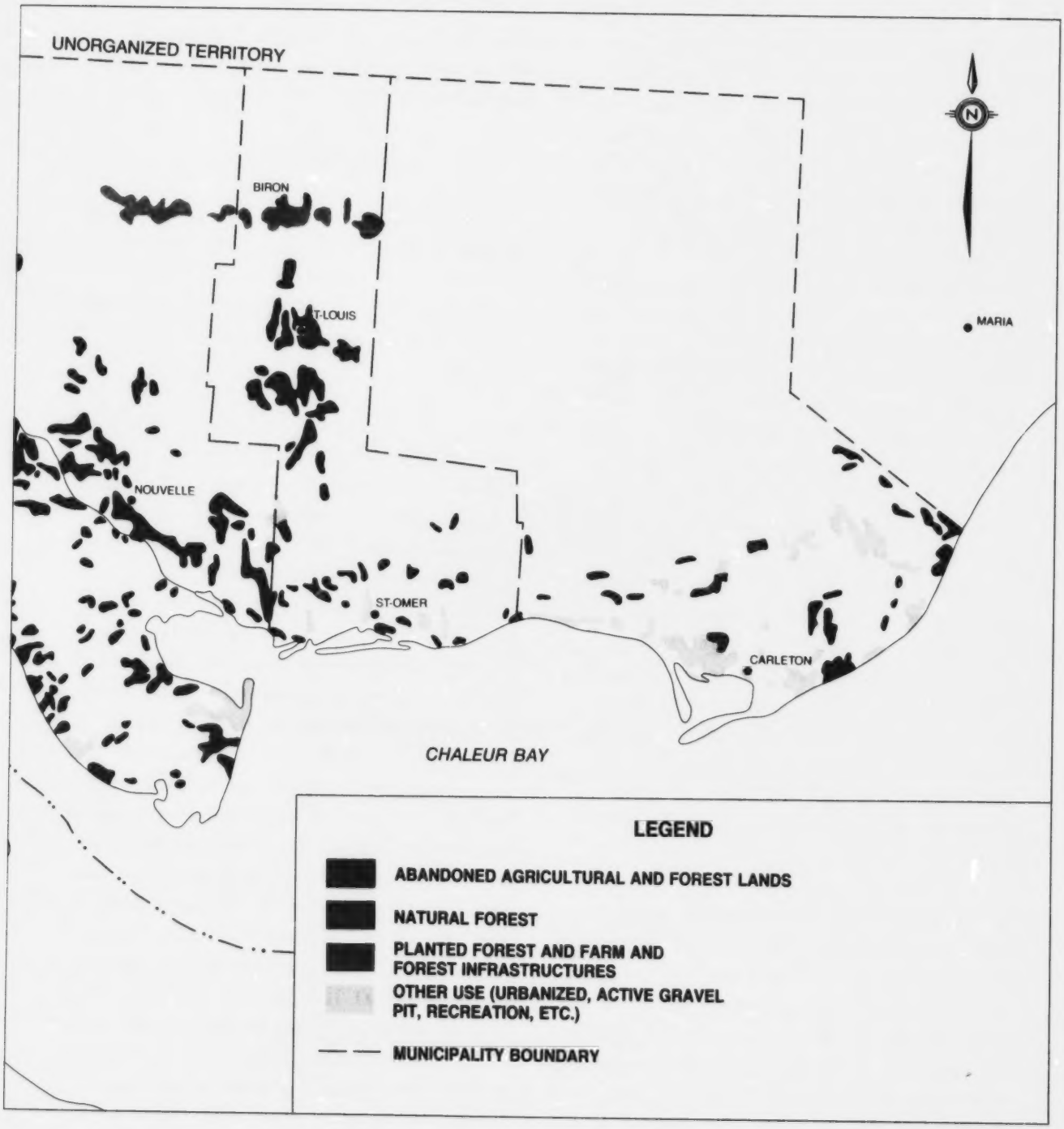
LOSS OF FARMLAND IN THE CARLETON AREA BETWEEN 1961 AND 1981, AND ITS USE IN 1981

UNORGANIZED
TERRITORY
CAUSAPSCAL
RIVIÈRE
CAUSAPSCAL
STE-MARGUERITE-MARIE
STE-FLORENCE
UNORGANIZED TERRITORY

FIGURE 4.2

LOSS OF FARMLAND IN THE CAUSAPSCAL AREA BETWEEN 1961 AND 1981, AND ITS USE IN 1981




UNORGANIZED TERRITORY
BIRON
ST-LOUIS
MARIA
NOUVELLE
ST-OMER
CARLETON
CHALEUR BAY
LEGEND
ABANDONED AGRICULTURAL AND FOREST LANDS
NATURAL FOREST
PLANTED FOREST AND FARM AND FOREST INFRASTRUCTURES
OTHER USE (URBANIZED, ACTIVE GRAVEL PIT, RECREATION, ETC.)
MUNICIPALITY BOUNDARY

cattle, as does the average farmer in the Carleton area. He sells his cattle each fall at the local auctions. He sums up his farming as follows: "The strict minimum should be grown; also, you should have the minimum amount of farm machinery to survive". This part-time farmer grows forage crops to satisfy his own needs. He indicates that provincial economic recovery programs between 1973 and 1976 allowed him to improve his farm activities, with a total of $6,000 in financial assistance. On the other hand, the province of Quebec's 1979 five-year plan put him in a frustrating situation: it was necessary to have 40 head of cattle in order to qualify for government assistance. In 1981, his total land area consisted of 152 hectares, 20 of which had been abandoned for 15 years (impossible to look after because of their distance from the house). He has been renting his neighbour's land, but after a five-year lease, he does not know whether his neighbour will renew the contract. Thus, it is difficult to invest in new infrastructure which cannot be made profitable if one has low farm acreage. Another reason for his hesitation about going into debt is the fact that he doubts his three daughters will be interested in farming and feels that, if he wanted to sell, he would probably not find a buyer.

In 1981, there were 89 farmers in the Carleton area, but farming was the principal occupation of only about 10 of them. The remainder were part-time farmers selling their output in the local market. Farmers may go to work outside the community reluctantly, but farm income, as we will see in the chapter which follows, is insufficient for survival. The profile of the Causapscal area is substantially the same, with an even lower number of full-time farmers. This situation has been responsible in part, since 1961, for the increase in fallow land in the areas under study (Tables 4.2 and 4.3).

4.4 Quality of Abandoned Farmland

The initial hypothesis was that farmers mainly abandoned land of low potential. But Table 4.4 shows that farmland is being abandoned on high quality land (classes 2 and 3) in similar proportion to that on lower classes.

Between 1961 and 1981, the amount of good-quality (class 2-3) farmland in use was greater in the Causapscal area, and decreased slightly over this period. In the Carleton area, the decrease in farmland occurred mainly in the abandoned parish of Biron, the municipality of Nouvelle, and to the west of this area (along the Nouvelle River), as well as along the Escuminac River, to the north of the municipality of Escuminac. The majority of this farmland falls in classes 5 and 6 (80%). In the Causapscal area, farmland losses occurred mainly to the north of Causapscal, along the Matapédia River, and to the north of Albertville. Most of this land was also class 5 and 6. Good quality farmland lost from farming (that in classes 2 and 3) were limited to 1,572 and 1,206 hectares respectively. Over the same period, the use of low-potential land (classes 7-0) for farming increased in the Carleton area. Since 1961, farmers in the Causapscal area use good quality farmland to a greater extent than farmers in the other study area (Table 4.4).

TABLE 4.2

COMPARISON OF LAND USE IN THE CARLETON AREA FOR THE YEARS 1961 AND 1981 (HECTARES)

LAND USE IN 1961	LAND USE IN 1981							
	Farmland		**Abandoned land**	**Forest land**		**Wetland**	**Other***	
	Land in cultivation, pasture and fruit production	Natural grazing land	Scrub	Wooded and reforested land; sawmill	Clean-felled	Marshland	Bare land and building	Total in 1961
Farmland								
Land in cultivation and pasture	4 337	325	1 238	806	20	11	430	7 167
Natural grazing land	163	84	127	122	6	0	21	523
Abandoned land								
Scrub	113	9	644	829	26	1	76	1 698
Forest land								
Wooded land; sawmill	178	32	205	44 175	826	8	90	45 514
Clean-felled	7	0	1	139	6	0	8	161
Wetland								
Marshland	3	0	5	13	0	63	8	92
Other								
Urban zone [1]	52	9	13	25	2	0	523	624
Total in 1981	4 853	459	2 233	46 109	886	83	1 156	**

[1] Includes farm and forest infrastructures, improved land, gravel pits, bare land and buildings.

* Includes land uses in 1961, plus those attached.

** Because of rounding, numbers may not correspond to totals shown.

TABLE 4.3

COMPARISON OF LAND USE IN THE CAUSAPSCAL AREA FOR THE YEARS 1961 AND 1981 (HECTARES)

LAND USE IN 1961	LAND USE IN 1981							
	Farmland		**Abandoned land**	**Forest land**		**Wetland**	**Other***	
	Land in cultivation, pasture and fruit production	Natural grazing land	Scrub	Wooded and reforested land; sawmill	Clean-felled	Marshland	Bare land and building	Total in 1961
Farmland								
Land in cultivation and pasture	4 270	379	1 202	382	62	0	113	6 408
Natural grazing land	304	264	320	116	19	0	20	1 043
Abandoned land								
Scrub	73	18	527	660	158	0	18	1 454
Forest land								
Wooded land; sawmill	267	49	239	33 076	3 233	5	77	36 946
Clean-felled	15	1	34	514	139	0	1	704
Wetland								
Marshland	0	0	0	1	0	3	0	4
Other								
Urban zone [1]	50	4	29	11	6	0	215	315
Total in 1981	4 979	715	2 351	34 760	3 617	8	444	**

1 Includes farm and forest infrastructures, improved land and gravel pit.

* Includes land uses in 1961, plus those attached.

** Because of rounding, numbers may not correspond to totals shown.

TABLE 4.4

QUALITY OF ABANDONED FARMLAND (HECTARES) IN THE STUDY AREAS BETWEEN 1961 AND 1981

	CARLETON				CAUSAPSCAL			
CLI Class	Land in Farming, 1961	Land Added 1961 - 1981	Land Lost 1961 - 1981	Land in Farming, 1981	Land in Farming, 1961	Land Added 1961 - 1981	Land Lost 1961 - 1981	Land in Farming, 1981
2 3	4 318	200	1 572	2 939	4 986	307	1 206	4 087
4 5	1 808	95	574	1 329	1 860	120	727	1 253
7 0	1 576	122	640	1 058	618	52	307	363
Total	15 404	417	2 786	5 326	7 464	479	2 240	5 703

4.5 Consolidation of the Dairy Industry

In the Carleton municipality, the 25 producing farmers in 1981 generally preferred to rent rather than to purchase additional land, because of the economic situation. Land sales were said to be stable but low. Non-producing farmers preferred to lend their land to other productive farmers rather than abandon it. Of 16 full-time farmers, 6 were producing milk, which was processed at the Amqui dairy. This illustrates one of the serious problems slowing economic development in the Carleton area: raw products were processed elsewhere. Prior to 1960, there were local butter dairies at Maria, to the east of the Carleton area. Consolidation of the dairy industry, as promoted by the Bureau d'aménagement de l'Est du Québec (BAEQ), centralized the dairy industry in the Matane-Campbellton commercial axis. This economically based consolidation involved the closing of local farm and forest infrastructure. Farmers located far from this commercial centre could produce milk and cattle solely for the local market, and forestry activity consisted of just logging.

Most Carleton area farmers who have abandoned dairy production site the cause as the high price of the milk quota. Half of the dairy production costs go to purchasing the quota. In 1970, the quota was practically being given away: it cost only seven cents a kilogram. In 1980, the price rose to $20 a kilogram. In addition, government crop insurance established in 1979 does not cover dairy or potato production. Potato production is concentrated mainly to the south of Nouvelle, in the Miguasha Peninsula, for which we noted a decrease in farmland between 1961 and 1981. The high risk of potato production tends to push farmers out of this activity, if other opportunities can be found.

To the farmers, an increase in farm size and dairy herd is seen to lead to profitability and security. But this involves going into debt to an extent that most farmers do not seem prepared to accept. However, farmers who wish to remain competitive have no choice and must do so. On the other hand, loans are difficult to negotiate because of the low amount of equity on the farmer's part. The net result has been fewer farms, and an overall regional concentration of commercial farming in the Matapédia valley where consolidation and scale economics have been possible.

4.6 Agro-Forest Development

The Causapscal region has been the focus for an innovative integrated approach to regional agro-forestry development under the Société d'Exploitation des Ressources de la vallée (SERV). SERV is deeply involved in agro-forest development in the Causapscal area. Land redevelopment is more common here than in the Carleton area. Since the end of the 1970s, there have been new developments in cattle raising. One of the stages in this type of organization includes fattening cattle. Agricultural planning texts generally contend that it is necessary to have good grain corn productivity in order to make fattening beef herds profitable. The Causapscal area does not have the biophysical potential for the development of grain corn. However, farmers have developed other possibilities by resorting successfully to the use of barley forage for fattening their herds. In 1980, SERV sponsored a $250,000 "Canada Works" project. The objective of this

project was to establish "Les Fermes Boval Inc." for fattening cattle and to provide forest training. Since the beginning of the 1980s, forest management in private valley woodlots has become significant. Of the $250,000 in subsidies, $96,000 was directed mainly to forest management: an inventory of forest potential for private woodlots and new forest production technology. The financial accounts specific to this project were transferred to an independent company, "Les Fermes Boval Inc.". This company included two farms: one at Ste-Irène (northwest of the Causapscal area) and a second at Causapscal. The two farms have a total capacity of 400 heads of beef cattle. The farm at Causapscal, which is actually an old dairy farm, has an area of 216 hectares, 174 of which are suitable for farming. Les Fermes Boval Inc. hopes to achieve self-sufficiency in crop production: notably grain, and hay ensilage. Boval farms have created 6 full-time and 12 seasonal jobs, and gross revenues of $850,000. However, lack of eligibility for farm credit, supply and marketing difficulties, and the scepticism of government officials concerning fattening cattle without grain corn have led SERV to the realization that new production in eastern Canada is subject to major constraints and problems. Indeed, some fields have been abandoned due to wetness and yield problems. In 1981, SERV obtained a $82,256 budget from the provincial government for regional economic development; thus it is recognized by the provincial government as an agent in rural planning.

SERV has filled a gap in the regional economy. The cattle fattening project was also intended to create an integrated chain of production. In addition, SERV's involvement in the "Fraser Slaughterhouse" project in the Carleton area completed this chain by affording opportunities for production, processing and marketing (Carré and Vaillancourt, 1982). Because of the problems of human and financial resources (only $10,000 in investment capital in 1980), however, the Fraser Slaughterhouse survived for only two years (1981 and 1982).

At the beginning of 1977, a reforestation program for abandoned farmland was set up. The developers quickly realized that it is difficult to establish the concept of a "forest village", living on a single resource, among people used to multiple occupations. At SERV, forest projects for the past few years may be summed up as follows: commercial clearing (70%), conversion (19%), preparation of land and reforestation (12%). Conversion is an approach which has grown in importance since the end of the 1970s. It consists of putting land which has deteriorated back into forest production. The reasons for deterioration are diverse, but the main ones are clean felling and fire (SERV Inc., 1981).

SERV plays a role in the reconveyance of public intramunicipal woodlots. At the end of the 1970s, the Quebec Ministry of Energy and Resources reconveyed public woodlots located inside municipal boundaries, and the management of units of 202 hectares or more, to SERV. The objectives of this policy were to revitalize rural (privately owned and intramunicipal) forests and scattered lots, consisting of private and public lots, into production units of 243 hectares. Certain incentives can motivate the farmer to participate in this new type of land planning involving the regrouping of scattered lots: a 50% reduction is allowed on the last lot sold by the Quebec Ministry of Energy and Resources

THE CLOSING OF MARGINAL PARISHES: THE HAMLET OF BIRON

The hamlet of Biron in the County of Bonaventure is an example of a back country settlement. Established during the 1930s during a period of expanded colonisation, Biron became one of the communities destined to be closed forty years later. During the 1930s, the exodus towards backwoods settlements aided by government aid for land clearance seemed to respond to the economic crisis. But Biron did not have a strong resource base. Thus, during the 1960s under the Bureau de l'Aménagement de l'est du Québec, Biron was one of the marginal parishes targetted for closure under the general reorganization plan for the lower St-Laurent and Madeleine Islands and Gaspé. In all, about 20 parishes and parish concessions were targetted for closure because of lack of infrastructure, small populations and difficulties in providing basic services.

Situated on a hilltop approximately 12 km inland, Biron was distant from the service centres of the coast. A short growing season and marginal production capability limited the development of economic agriculture and the forest resource was nearly exhausted. There was little possibility to develop local industry on the site. Biron had only a tiny sawmill and an agricultural co-op. In 1965, there were only 300 persons in Biron. Biron's future rested on government assistance - either to develop, or to leave. The negotiation of the first development agreement for the east of Quebec brought the funds necessary to aid in their relocation.

On page 50, two photos show Biron in 1963 and after resettlement in 1981. In photo 1, the small hamlet is shown surrounded by agricultural plots and further out by the forest resources sustaining the community. In the early 1970s, the relocation programs moved the 300 residents of Biron out of the hamlet, primarily to the municipality of St-Omer at the coast. Some buildings were moved, but most, in 1973-74 were razed and the land taken over by the Government of Quebec for reforestation. Photo 2 shows the same site in 1981 with little remaining evidence of the former hamlet and the reforested areas (350 hectares) showing trees approximately 6 feet in height.

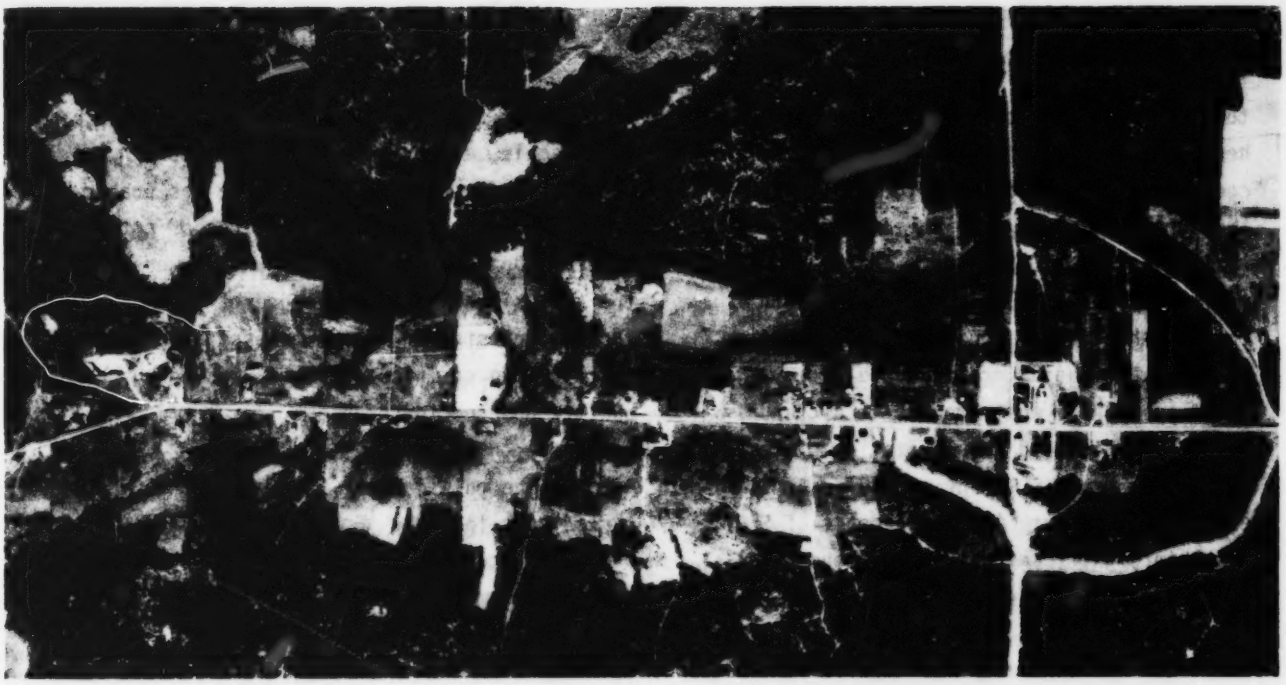


Photo 1: The aerial photo (above), taken in 1963, clearly shows the hamlet of Biron and its agricultural activity.

Ministry of Energy and Resources of Quebec, 1982.

Photo 2: The aerial photo (below), taken in 1981, shows the hamlet of Biron after the BAEQ intervention which enabled the emigration of the inhabitants. At this time, only the road infrastructure is left. Fields are being restocked naturally or by government of Quebec assistance.

Ministry of Energy and Resources of Quebec, 1982.

to any purchaser who consolidates a 243-hectare block. But the conditions of sale commit the production unit to development for 15 years. This may make the owner fearful of losing control of his land. In the past few years, however, public reaction has been changing because of an information campaign. Thus, we are seeing greater popular participation in what amounts to a gradual intensification and regularization of forest land management (SERV Inc., 1980). As is evident from Figure 4.5, the impact of SERV has been significant within the Causapscal study area.

4.7 Changes in Forest Industry Operations

Between 1961 and 1981, forest land in the Carleton and Causapscal areas decreased by 1,343 and 3,873 hectares respectively (Figures 4.3 and 4.4). In the Causapscal area, 83% of this land was clean-felled; at the time these areas where visited (1982-84) it had not been reforested. It is located mainly in the south of the Causapscal area, to the east of Ste-Florence, where development companies have not been much involved. Up to the present time, the involvement of SERV and of agro-forest groups in the forest and farming sectors has constituted the major effort of the "Organismes de gestion en commun" (OGC) [Joint Management Agencies], which group private property-owners together.

There are few forest products plants in the Carleton area. The two most important ones serving this area are the pulp and paper plants at Chandler and New-Richmond. However, since the end of the 1970s, the species of trees demanded by these plants have been poplar, fir, and spruce, so as to produce better-quality paper. Most private forest holdings do not grow these species. In 1980, for example, a private woodlot operator in Carleton suffered huge losses. He was unable, in that year, to sell his 150 cords of cut timber. Dozens of woodlot operators were in the same situation both because of spruce budworm infestation, which necessitated the cutting down of infected trees, and because of quality and species problems.

Part of the only sawmill located at Escuminac burned down in 1981. Following the fire, the provincial government provided subsidies so that the sawmill could be reopened for lumber and wood chip production. "Bois Lacroix" located in Carleton is the local intermediary which sells raw forest products to the European market. This trade exemplifies the lack of local processing plants. Some farmer-foresters have noted that: "furniture manufacturing, or construction of wood processing plants, would create jobs in the region". Tables, bought in local stores in Carleton, may have been manufactured in France of local wood.

During the past three years, the New-Richmond (Consolidated Bathurst) pulp and paper plant has been buying more wood chips and fewer four-foot logs. The plant has focused production on wood chips and sawdust. This production, which has developed over the past few years, substantially decreases lumber handling and processing before the finished product is produced. Thus, trade between the various lumber companies such as "Les Bois Lacroix" has been promoted. The small farmer-forester does not find it in his interest to participate in this new production, since the pulp and paper plants are now producing their products using lumber waste rather than whole logs. Thus, little

farming, small woodlot production is being hurt by changes in markets.

In 1981, the lumber industry (pulp and paper, sawmills, the furniture industry, etc.) and the agri-food industry represented over three-quarters of Gaspé manufacturing employment. The regional economic situation remains considerably less healthy than in Canada or the rest of Quebec; the labour force participation rate is very low, and the real unemployment rate is almost 35% (more than double the rate for Canada as a whole). Statistics show that the number of Gaspé region welfare recipients increased by 27% between 1975 and 1980 (Statistics Canada reports that almost 51% of Valley taxpayers live at, or below, the poverty line). These few figures illustrate the gravity of the area's socioeconomic problems and provide an idea of the employment which must be generated in order to raise the region's standard of living (Carré and Vaillancourt, 1982).

4.8 Land Management

When farm and forest properties are put up for sale, there is frequently no local purchaser. Several reasons for this are cited; those most often mentioned are the inaccessibility of the properties or the lack of liquidity. Thus, if sold, properties pass into the hands of private owners who live outside the region, or of Quebec ministries such as the Ministry of Energy and Resources. The 1974 creation of the development company, SERV, has been a partial answer to this problem, aided by government financial assistance. It is a local population-oriented alternative which groups together 70 members: farmers, woodlot owners and Valley workers. The municipalities in the Causapscal area are some of the fourteen Valley municipalities in which SERV is involved (Figure 4.5).

Since the early 1980s, SERV has focused mainly on forestry development since most commercial farm production, principally oriented toward industrial milk production, is less attractive because of the cost of quotas. Since 1961, the region has been undergoing gradual land redevelopment, and overall, farming has been losing ground; in 1961, agriculture accounted for more than half the employment in the primary sector. Between 1961 and 1971, a 35% drop in the farming population led to a decrease of 436 jobs in the Causapscal area (SERV Inc., 1976).

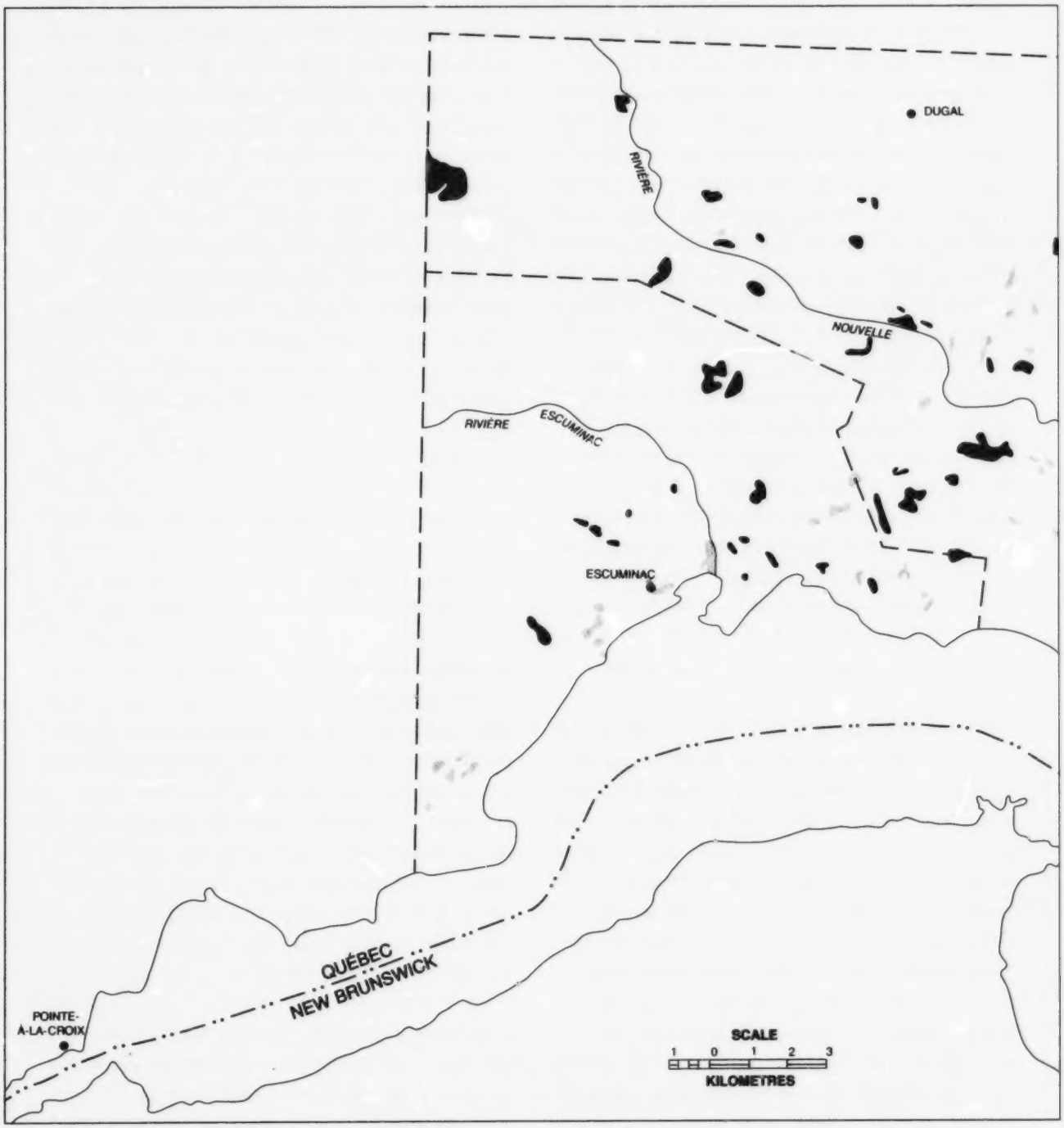
4.9 Conclusion

From 1961 to 1981, the Carleton and Causapscal areas have experienced a 5,026-hectare decline in farmland. Most of this land (60%) was still lying unused in 1981. In that same year, natural forests accounted for 20% of abandoned farmland. The abandoned farm parish of Biron and land to the south of it mark the most important area of developed forest land. In terms of surface area, forest management on abandoned farmland is negligible. New uses for the land, such as urban development and recreational areas, are more important than forestry development, particularly in the Carleton area. It should be noted that one of the three tourist areas developed in Gaspé by the BAEQ is located in the Carleton area.

Between 1961 and 1981, forest land also decreased, by 5,216 hectares; 78% of this decrease, the result of clean felling, occurred mainly at Ste-Florence, in the south of the Causapscal area. Only 10% of abandoned forest land has been recovered for agricultural use.

FIGURE 4.3

LOSS OF FOREST LAND IN THE CARLETON AREA BETWEEN 1961 AND 1981, AND ITS USE IN 1981



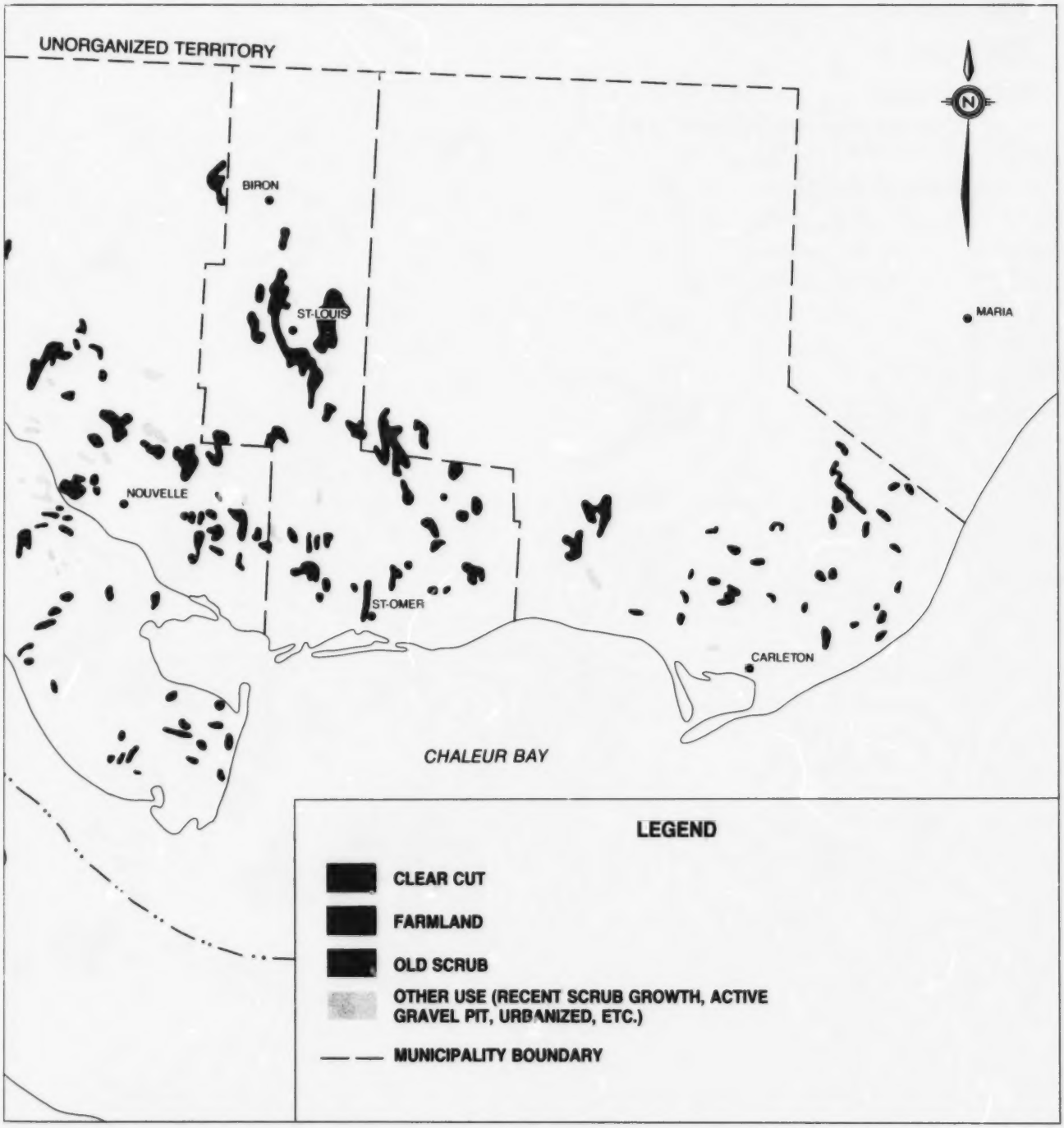
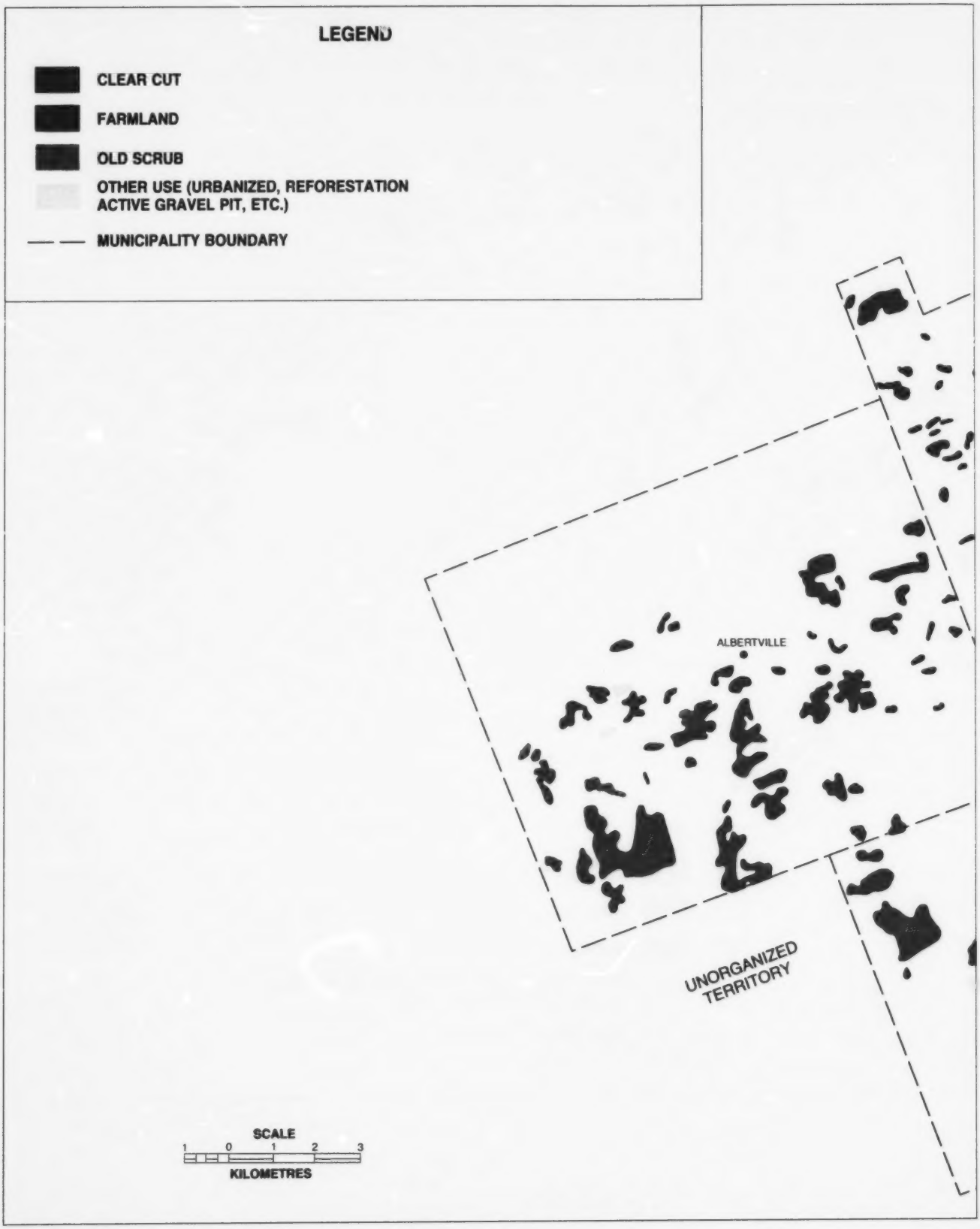

UNORGANIZED TERRITORY
N
BIRON
ST-LOUIS
MARIA
NOUVELLE
ST-OMER
CARLETON
CHALEUR BAY
LEGEND
CLEAR CUT
FARMLAND
OLD SCRUB
OTHER USE (RECENT SCRUB GROWTH, ACTIVE GRAVEL PIT, URBANIZED, ETC.)
MUNICIPALITY BOUNDARY

FIGURE 4.4

LOSS OF FOREST LAND IN THE CAUSAPSCAL AREA BETWEEN 1961 AND 1981, AND ITS USE IN 1981



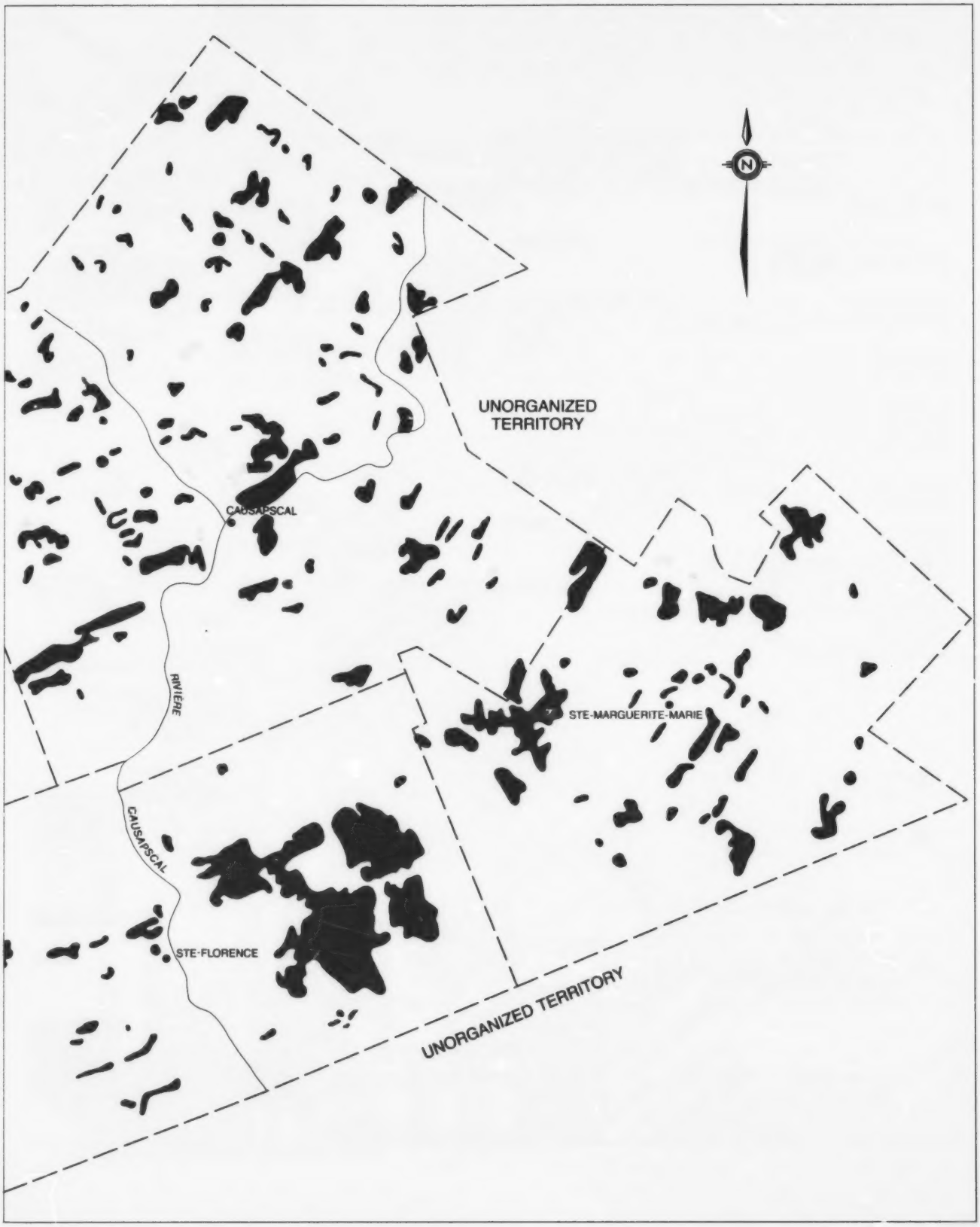
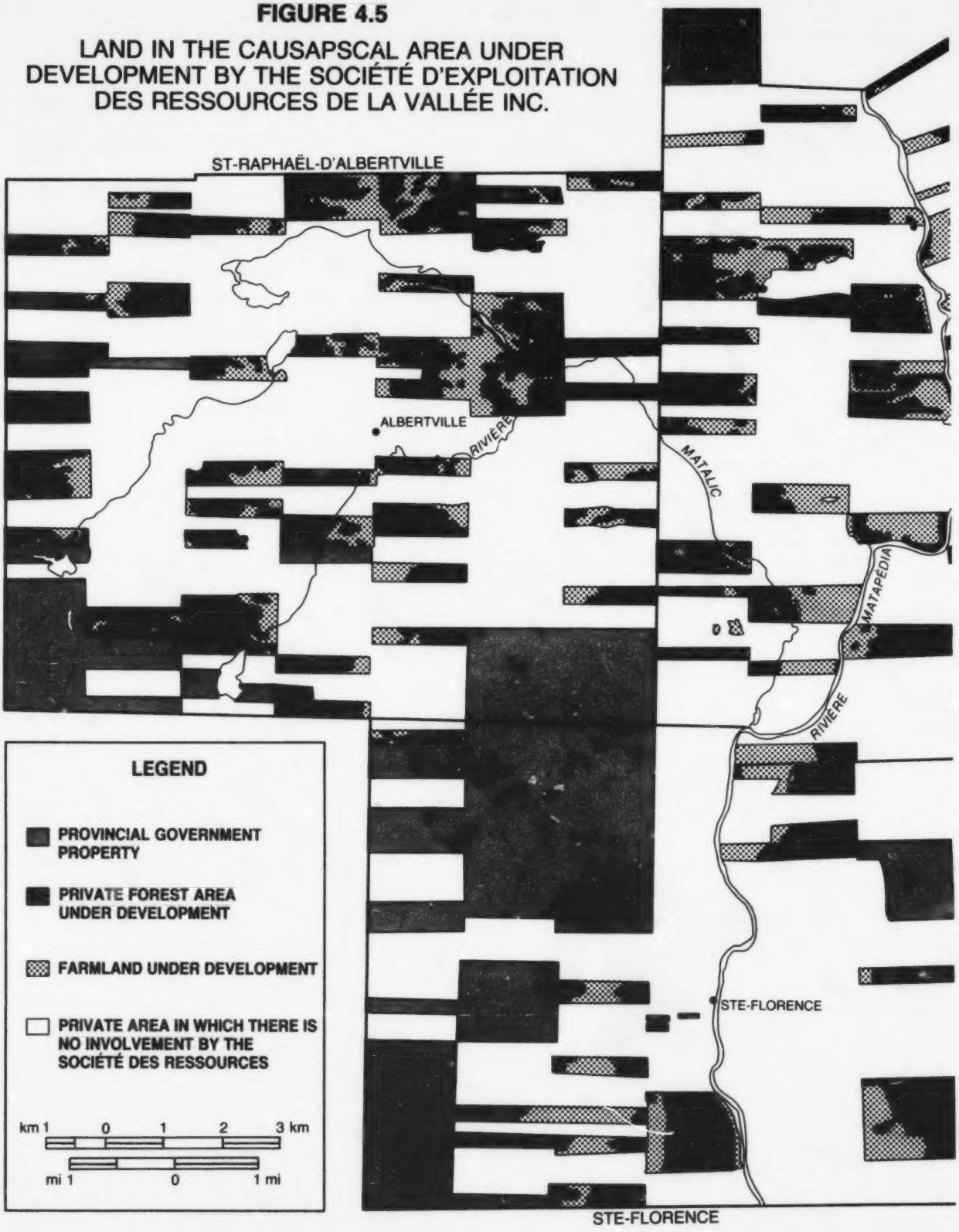
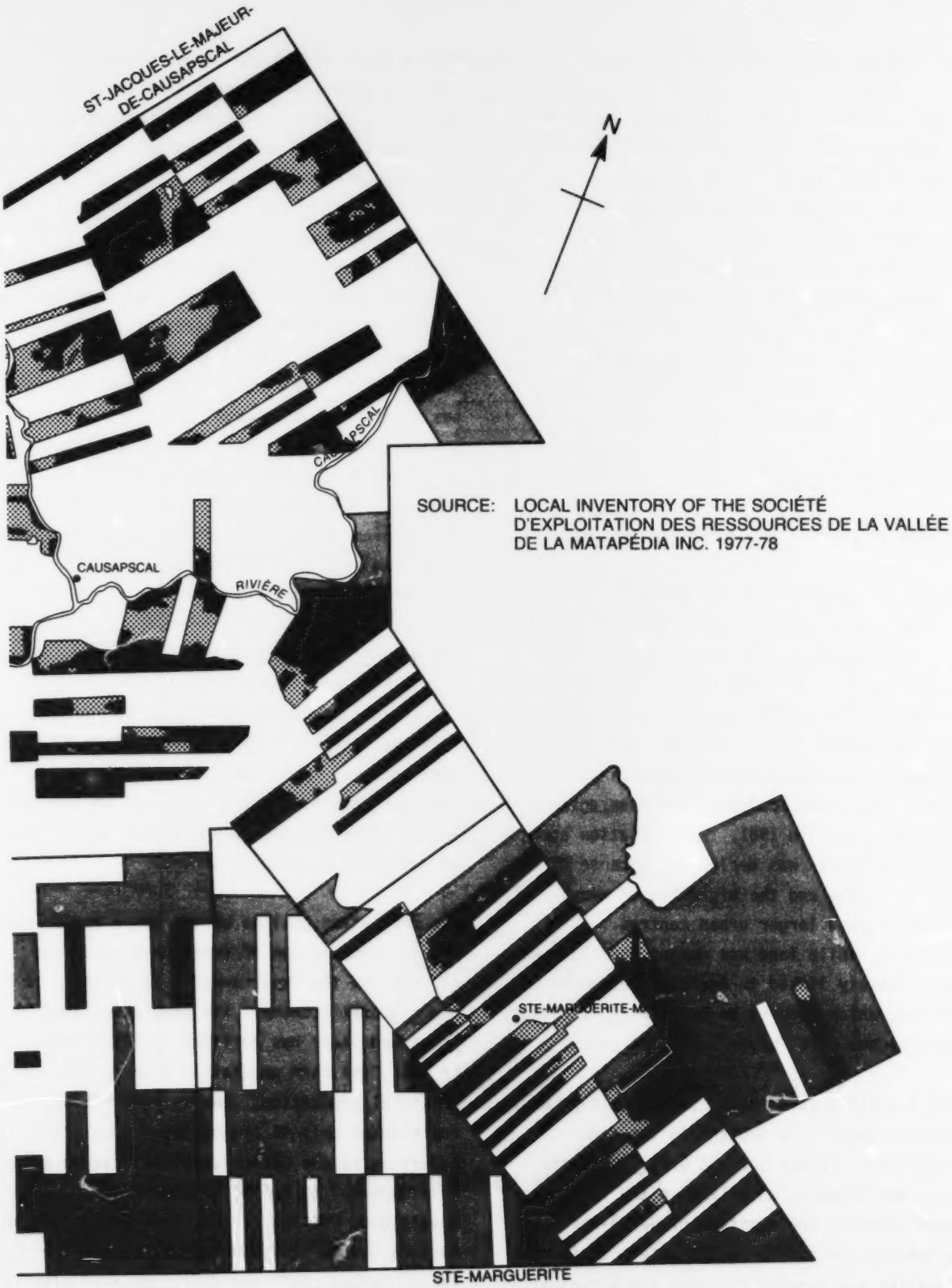

UNORGANIZED
TERRITORY
CAUSAPSCAL
RIVIÈRE
STE-MARGUERITE-MARIE
CAUSAPSCAL
STE-FLORENCE
UNORGANIZED TERRITORY

FIGURE 4.5

LAND IN THE CAUSAPSCAL AREA UNDER DEVELOPMENT BY THE SOCIÉTÉ D'EXPLOITATION DES RESSOURCES DE LA VALLÉE INC.





SOURCE: LOCAL INVENTORY OF THE SOCIÉTÉ D'EXPLOITATION DES RESSOURCES DE LA VALLÉE DE LA MATAPÉDIA INC. 1977-78

5. CAUSES OF THE DECREASE IN FARMING

There are many factors behind the decrease in Gaspé farmland. This chapter puts forward some of those which became evident in the regional analyses and the specific local studies. They include: the decline and aging of both the total and farm populations; changes in regional development and economic opportunities; difficulties with the production economy; the fragmentation of properties; changing rural society; and the impact of government programs on land use.

5.1 Social Factors

Change in Farming and Total Population

Gaspé, which totals almost 30,000 square kilometres in area, supports a population of 150,000 occupying only 15% of its surface area. The region's population is down 21,000 since 1961, a decline of 12%. Farm population fell much more rapidly than the total, with losses of over 80% reported in each county. Since 1961, the population has been aging (Figure 5.1). In 1981, the population aged 20 years and under was declining, because of a low birthrate and the migration of young people toward larger urban centres. In addition, while land use during the 1960s was more closely linked to agriculture, youth values, which used to be oriented to the land, have become more "urban" over the years.

The overall restructuring of agriculture was first evident in a decline in the farm population (Tables 5.1 and 5.2). Over the past two decades, a decline in the farm population in the counties of Gaspé-West and Gaspé-East in particular is noted; these counties are located far from the principal farm markets of Bic and Rimouski. Within them, it must also be noted that the hilly terrain, including mountains such as the Chic-Chocs range, pose a physical constraint to agriculture.

Between 1961 and 1981, the counties of Gaspé-West and Gaspé-East changed very little in total population. However, the farming population decreased substantially. The population (particularly in Gaspé-East) now works more in the fishery. Matane-Matapédia has experienced the greatest decline in total population (24%) associated principally with rural depopulation. The farming population thus declined dramatically (by 82% in 20 years) even though these counties are located along the main trading axis of Matane-Campbellton.

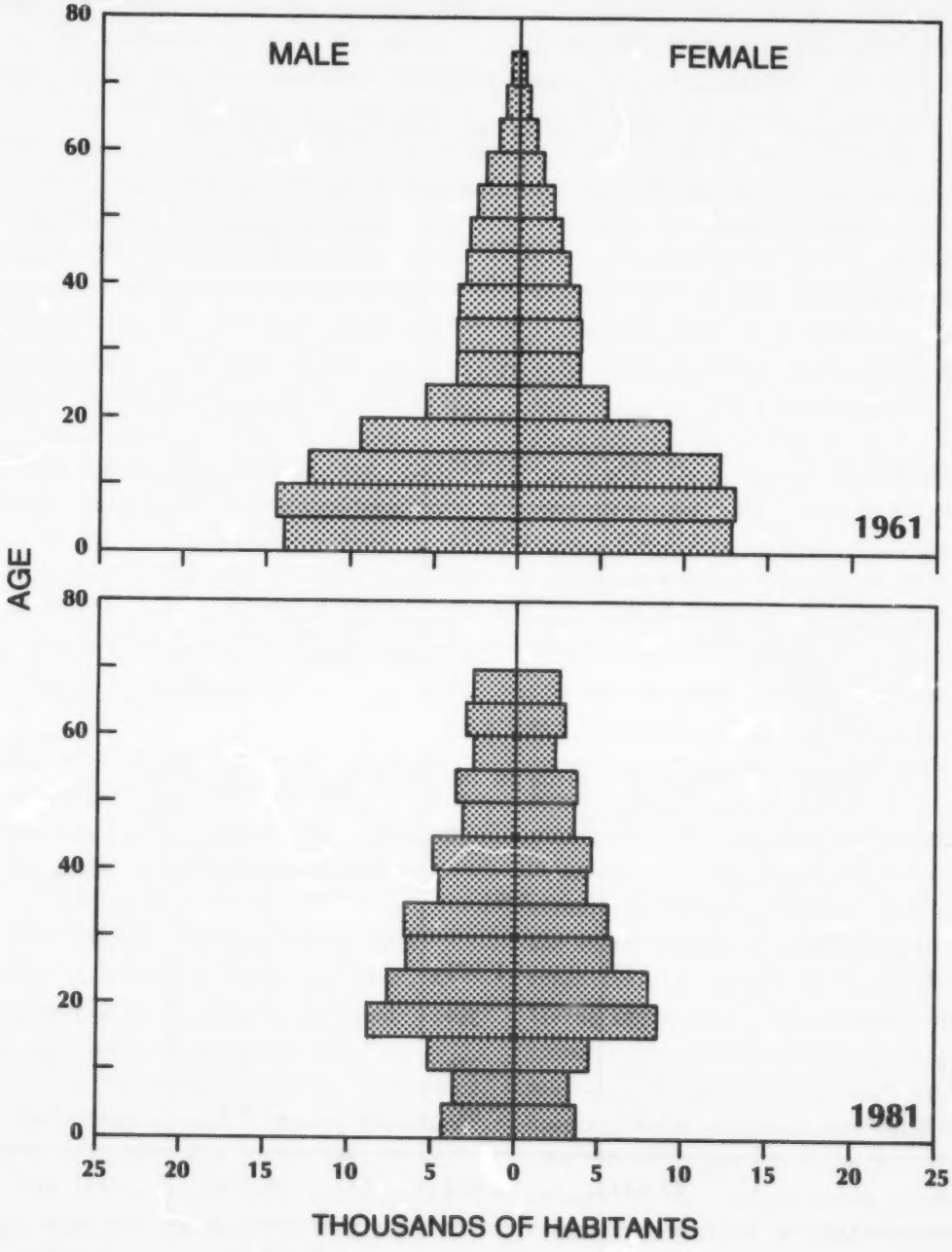
Demographic Concentration

The loss of population continued in the 1976-1981 period, with a regional loss of over 6000 persons. Only the county of Matane was somewhat stable, showing a 1% loss in the five years, primarily due to the growth of the town of Matane as a regional centre.

The population decline of the Gaspé region has led to depopulation of some rural areas and has reduced the importance of agriculture in the regional economy. The population aged 14 years and under has declined by 40% or more. In 1961, the farm population made up 24% of the total population; twenty years later, it represented only 4% of the total population. According to the Office de planification et de développement du Québec [Quebec Planning and Development Office] (1976), farm businesses in eastern Quebec provided only 1% of personal income between 1961 and 1971, compared with 7%

FIGURE 5.1

TOTAL POPULATION OF THE GASPÉ REGION
BY AGE AND SEX, 1961 AND 1981



Source: Statistics Canada.

TABLE 5.1

CHANGE IN TOTAL POPULATION IN THE GASPÉ REGION, 1961-1981

COUNTY	1961	1981	Absolute change 1961-1981	% change 1961-1981
Bonaventure	42 962	40 487	(-) 2 475	(-) 5.7
Gaspé East	41 333	41 173	(-) 160	(-) 0.4
Gaspé West	20 529	18 943	(-) 1 586	(-) 7.7
Matane-Matapédia	70 664	53 670	(-) 16 994	(-) 24.0
Region	175 488	154 273	(-) 21 215	(-) 12.0
Canada	18 238 247	24 343 181	(+) 6 104 934	(+) 25.0

TABLE 5.2

CHANGE IN FARMING POPULATION IN THE GASPÉ REGION, 1961-1981

COUNTY	1961	1981	Absolute change 1961-1981	% change 1961-1981
Bonaventure	13 103	1 921	(-) 11 182	(-) 85.3
Gaspé East	5 153	389	(-) 4 764	(-) 92.4
Gaspé West	2 812	298	(-) 2 514	(-) 89.4
Matane-Matapédia	21 565	3 891	(-) 17 674	(-) 81.9
Region	42 633	6 499	(-) 36 134	(-) 84.7
Canada	2 128 400	1 039 851	(-) 1 088 549	(-) 51.1

Source: Statistics Canada

during the preceding decade. In addition, Statistics Canada recorded a concentration in the size of farm incomes between 1971 and 1981. The percentage of farm population with an income lower than $2,500 remained the same or increased considerably, as in the two counties of Gaspé-East and Gaspé-West, where no farmer earned $5,000 or more. Only the counties of Matane and Matapédia had a growing proportion of their farm population earning an income of $10,000 or more (Table 5.3). The low proportion of the farm population with earnings of $10,000 or over reflects the limited role of farming in the Gaspé region. The chronically underdeveloped state of agriculture in Gaspé, described in 1966 by the Bureau d'aménagement de l'Est du Québec (BAEQ), had scarcely improved in 1981. All the counties were experiencing problems in adapting to the requirements of modern agriculture and the demands for more intensive production.

Rise in Educational Levels

The Quebec educational reforms of the 1960s allowed a larger number of Québecois to reach the university level: between 1976 and 1981, there was a 60% increase in the number of Gaspé residents with a university degree (Statistics Canada). However, the closest university is located at Rimouski. Thus, a student interested in pursuing advanced studies must leave Gaspé, often never to return, since the regional economy is oriented toward the primary sector, limiting therefore the supply of specialized jobs. With access to new city values, rural youth often refuse to remain isolated and emigrate from the region. This out-migration has led to an aging of the farm population and, thus, to a problem of renewal.

Personal Aspirations

In 1981, significant areas of viable agriculture were found only in the western part of the Gaspé region. Previous chapters have shown that Gaspé was never predominantly an agricultural region. The call of the land preached by the clergy at the outset of settlement led to the tilling of Gaspé soil, and to subsistence farming. In that era, this lifestyle was viewed by many as satisfactory since the standard of living throughout Canada was low. Since then, with technological change and progress in communications, Gaspé values have changed. Farming has become a business, and most farmers want to achieve a standard of living comparable to that of other Canadians. As a result, farmers, where able, have increased their production in order to increase their income, and thus, their purchasing power. The consolidation of farms near markets involves farmland abandonment.

Economic activity in most of the area, that is, the rural part, is confined to farming and lumbering. The undiversified structure of the economy and the small number of industries and businesses limit the demand for manpower. Urbanized regions, where the industrial structure is more technologically advanced, and where capital is available, attract inhabitants of Gaspé with hopes of better living conditions. Improvements in communications and transportation are also making out-migration from Gaspé easier. However, Gaspé residents who out-migrate leave land behind unused, or leave it (often informally) to a neighbouring farmer to use. Although data allowing quantification of property values and of changes in popular aspirations are lacking, we can state that land remains in the family at least in part,

TABLE 5.3

PERCENTAGE DISTRIBUTION OF FARM OPERATORS BY FARM INCOME LEVELS IN EACH COUNTY
1971-1981

COUNTY	Farm income								Farmers aged 65 years and over	
	1971	1981	1971	1981	1971	1981	1971	1981	1971	1981
	Less than $2,500		$2,500-$4,990		$5,000-$9,999		$10,000 and over			
Bonaventure	40	35	19	19	19	18	23	28	89	30
Gaspé East	67	52	16	23	8	13	9	12	49	11
Gaspé West	59	46	17	17	11	20	12	17	18	7
Matane	24	24	11	9	18	8	47	58	42	23
Matapédia	20	20	10	9	18	9	52	63	44	27

Source: Statistics Canada

because of the weak real estate market and the desire to provide a type of insurance for the migrant's future.

5.2 Economic Factors

Poor Employment Opportunities

Scott's Industrial Directory outlines the loss of farm and forest infrastructure between 1963 and 1980: the six agricultural products farms in the county of Bonaventure closed down. During the same period, a major decline in local forest infrastructure was evident, in particular in Gaspé-West where the number of mills dropped from 14 to 3. The only industrial activity which experienced some growth was fishing, in Gaspé-East: plants there more than doubled, from 4 to 10, partly the result of BAEQ involvement.

In order to further investigate the impact of government involvement, people closely associated with the farming sector, such as municipal secretaries, farmers and rural residents, were approached. At the regional level, the views of these people on outside intervention ranged from "aid to management" to "regional saviour". Sometimes however, government actions and problems of communication between government officials and the rural residents increase the climate of social uncertainty. The municipality of Pointe-à-la-Croix, to the west of the Carleton area, provides an example. It is a one-industry municipality; the sawmill established in 1970 employs about 100 people. In addition, outside work in felling and transporting lumber adds to the possibilities of employment. During the 1970s, the owners received $166,000 in subsidies under the Canada-Quebec agreement for regional development of the Gaspé-Lower St. Lawrence, in order to meet part of the wages. The sawmill was heavily subsidized since the provincial government was also paying a percentage of employee wages. From the outset, the firm increased the number of seasonal employees, as it wished to profit to the maximum extent possible from provincial subsidies. This indirectly led to greater employment problems. Employees frequently left less-well-paid, but full-time, jobs to take on better-paid seasonal employment.

The plant burned down in January of 1983. In 1980, the Blanchette Company, to the north of Quebec City, bought the plant from the Government of Quebec but decided not to rebuild in the same location, preferring to sell the machinery to a farm in New Brunswick. After the fire, Blanchette Inc. requested a further subsidy from Canada and Quebec under the agreement. This was approved, but there has been no implementation. Blanchette Inc. has chosen instead to reconstruct their other plant at Causapscal because wood supplies are better and the location was more central to their operations.

Local Farm Market Situation

For the past twenty years, the decrease in the farm population has paralleled an increase in overall productivity. However, productivity gains are limited to a few specific products such as dairy products, which restrict in turn the market for Gaspé farmers. The market has become even more limited since the arrival of the large food chains which distribute their products throughout Gaspé and can limit local relationships between farm producers and consumers. The large food distributors usually obtain supplies year round from

outside the region, in order to satisfy local demand, thus making the local market less accessible to farmers. In addition, the low production capacity of the local market garden industry also reduces the local ability to serve this "chain" market, even in season.

"Les Fermes Boval" provide a good example of the difficulty in accessing the local market. Gaspé residents prefer western to locally produced beef and are prepared to pay a premium for it. This inhibits agricultural expansion. Over the past few years, Gaspé farm production has been generally oriented toward local self-sufficiency in providing cattle feed. But limited success in competing with imported beef has been a factor in some farmers' decisions to underutilize and, finally, to abandon their farmland.

Importance of the Forest Industry

The forest co-operative is certainly the organization which seems most likely to enhance regional development in the current decade. The forest co-operative undertakes four types of activities: services; negotiations; the forest industry itself; and finally, forestry development and processing. Although logging is the most common activity of the co-operatives, forest management is becoming increasingly important.

If a forest co-operative is seeking financial backing, Rexfor and the federal/provincial development agreements may be able to offer the desired guarantees. Rexfor, a provincial government Crown corporation, is interested in investment on a share basis in the technical work and financing of projects which offer a good chance of success and profitability. In addition, the federal-provincial development agreements contribute to improving forestry development. Development of forest resources is mainly facilitated through improvement in the network of access routes and a reforestation program.

Even though several sources of the rural problem have been considered in this study, it is evident that this region lost many of its productive enterprises between 1961 and 1981. Welfare is more prevalent than ever. Increased cooperation between the three levels of government (federal, provincial and regional) is critical to any development, to better the lot of the regional population.

Some local politicians have spoken out against programs that turn over forest areas to the large forest entrepreneurs, but the continuing role of these companies is a key element of the region's economy. In the 1970s, DREE promoted certain community development projects and the development of local forest resources owned by the farmers, but these still remain small relative to the larger firms.

The situation in eastern Quebec is very different from much of Canada as far as private ownership of forest land is concerned; privately owned land represents 33% of total forest land. The proportion of lumber supplied to plants from private forests varies. Since the end of the 1970s, it has become increasingly difficult to dispose of forest production from smaller private woodlots.

In 1970, farmers demanded the application of Bill 41 (Arsenault Act), in order to force processing companies to use a substantial share of the small landowner's forest

production. The forest sector in the region represents 50% of existing jobs; therefore it is central to regional welfare. Since the end of the 1970s, the lumber market for the Carleton study area has been practically non-existent, despite the proximity of the New-Richmond paper mill. The latter has been using only wood chips and sawdust for the past three years, thus preventing sales by the small forest producers who have no chopping facilities. In addition, the more distant Chandler plant is very selective in its choice of species. If woodlot managers cut down trees, there is no assurance they can sell all of them. The new technology, which has tightened the relationship between the paper mill and the sawmill, is affecting small landowners economically.

The Société d'exploitation des ressources de la Vallée (SERV), the co-operatives and forest groups designated as "joint management agencies" (organismes de gestion en commun - OGC) are enabling Gaspé farmers to join together, as is the case for other such organizations across the province of Quebec. The OGCs have established a type of development which aims to integrate various natural resources (forest and farm) with industry, and even with tourism and handicrafts. This is intended to fight the exodus of the local population and the resultant parish closings. These OGCs have requested and obtained contracts for public forest development; such contracts are usually restricted to co-operatives or large firms. These latter contracts are more valuable and, in 1980, the Quebec Ministry of Energy and Resources made it mandatory for plants to give half of all forest development contracts to the OGCs. Thus, the OGCs and the Société d'aménagement intégré des ressources de l'Est du Québec (SAIREQ) [Eastern Quebec Integrated Resource Development Corporation] are playing an important role in the development of the forest industry in the region.

However, this new type of land management, which gives priority to the integration of forest, farm and tourist activities, has created some tension between SAIREQ, which is setting up a new way of managing the backcountry, and the industrial commissioners in the towns, who feel the threat of new competition from this initiative. This type of corporation plays a role somewhat like that of the new "municipalités régionales de comté" (MRC) [regional municipalities] established in 1979 by Bill 125 on Land Management. Some decision makers who are not involved in large-scale land use planning appear to oppose the establishment of a new level of planning with possible restrictions on farm or forest enterprise. Also, an integrated approach to planning with respect to local resources is a concept which has not been universally accepted. The development corporations (the OGCs and SAIREQ) have made it known that they are increasingly anxious that this new level of planning should respond directly to the social needs of Gaspé residents.

A Diversified Economy

Gaspé has a wide range of economic activities including agriculture, forestry, fishing, mining, and tourism. With the exception of a small number of industrial centres, such as the towns of Matane and Gaspé, the majority of Gaspé towns are only weakly integrated in an important economic market. Even though all parts of the Gaspé have a varied economy,

recent trends have produced some regional specialization.

We may classify rural land use in the region in 1981 by type of economic activity, as follows: 1) the farming region along the coast, in the Matapédia Valley and on the terraces (good to medium agricultural capability); the backcountry farming region (low to moderate agricultural capability), where forestry predominates; 2) the mining region of Gaspé-West, again with a strong forest industry; 3) the fishing region of Gaspé-East; and 4) the tourist region of Forillon Park and Percé.

5.3 The BAEQ: an Experiment in Economic Development

Background and General Orientation

During the Canadian economic recession of the 1950s, the federal government passed the Agricultural and Rural Development Act (ARDA) in order to encourage the development of solutions to social and economic problems at the regional level. The objective sought was federal-provincial co-operation in research activities and project implementation.

One of the most important integrated attempts at regional planning in Canada took place in eastern Quebec under the BAEQ. From this perspective, the BAEQ experiment was the first large-scale economic development project in eastern Canada, covering the lower St. Lawrence, Gaspé and Magdalen Islands. It remains unique in its size and the considerable influence it subsequently had on land use. The BAEQ is a non-profit corporation managed by five delegates of the Conseil régional d'expansion économique de la Gaspésie et des Iles-de-la-Madeleine (CREEGIM) [Gaspé and Magdalen Islands Regional Economic Development Council]. Although financial assistance is provided equally by the two levels of government (federal and provincial), the BAEQ is accountable directly to the provincial government, specifically the Ministry of Agriculture. Between 1963 and 1966, the latter mandated the BAEQ to hire the planners and specialists required to produce 10 pilot Land Development Plan outlines for the region.

The BAEQ's mandate was to establish a development program based on 4 specific variables: land, resources, socioeconomic organization, and population. The BAEQ outlined the problem in 1964 as follows: the society and its economy are characterized by a set of territorial imbalances, with prosperous farming areas along the lower St. Lawrence coast and disadvantaged areas in the backcountry parishes. Traditional farming was being carried out on small plots of land. In contrast, the modern forest industry is being taken over by large companies. In addition, in the fishing sector, landing facilities are inadequate for commercial fishing. These imbalances necessitate a socioeconomic organization which permits suitable use of resources for each pilot area (Angers et Dion, 1971).

In 1968, under the terms of a federal-provincial agreement, the two governments committed $250 million to carry out various Plan programs; almost half, or $114 million, was allocated to social development and manpower upgrading. The sums available for carrying out specific regional development measures averaged $2.3 million per county per year, a small sum if one wishes to establish

new land management (Bélanger et al., 1981). In 1969, the ARDA and Fonds de développement économique rural [Rural Economic Development Fund] (FODER) programs were taken over by the Department of Regional Economic Expansion (DREE). The latter's regional development policy was oriented more toward industry and employment; thus, the emphasis was no longer on the development of local primary production activities, but rather on the development of industrial infrastructure. In 1971, the government agreement was reviewed and the federal share upped to $297.7 million, with the provincial government contributing $113.5 million.

The BAEQ viewed the regional problem as one of economic disequilibrium, which could be described as a dislocation between the various economic sectors. There are only two large urban areas in the region: the towns of Matane and Gaspé, which were created in 1963 in answer to the development of goods and services. Industry is located outside the urban centres. Thus, the demand for goods and services, rather than industrialization, led to urbanization. The counties of Bonaventure and Matapédia are organized around certain centres: New-Richmond, Bonaventure, Amqui and Causapscal, which compete with each other. This led the BAEQ to recognize the need to organize development around particular, favoured centres. One of the BAEQ's hypotheses was the need to organize the region into regionally specialized units for each activity sector.

Modernization of Traditional Sectors

The traditional sectors of farming, logging and fishing are the pivot of the regional economy, but traditional methods of operation have made them a source of unemployment and low wages. The BAEQ sought to restructure these sectors to enable them to become competitive, while involving new economic activities which offer stable employment.

Within each of the traditional sectors, the BAEQ assisted in the reorganization of the old production unit: the farm, the fishing boat, the small processing plant and the logging operation. This land use planning was designed to affect the troubled primary and secondary economic sectors and to lead towards the directed use of Gaspé resources. The modernization of economical resources, sought by the BAEQ, was achieved more readily in the urban centres (Matane, Carleton and Percé). Centralization of industrial infrastructure encouraged economic development while avoiding the dispersal of regional resources. Because of the range of the projects, however, the effect on long-term regional development remains very difficult to measure. Over the years, forms of development and the values of people have changed, and changing means of transportation, including the effects of the oil crisis, have affected the region. Nevertheless, the BAEQ influence has been profound and pervasive - a significant influence on the nature and level of development of the region's land resource.

A New Agricultural Organization

Under the BAEQ, the changed orientation of farmland focused on dairy production, which remains the dominant commercial form of agriculture in the region. A form of agricultural zoning was organized in terms of the regions with potential for dairy production. Farming was to disappear completely in the marginal zones, that is, in

about 50 parishes and surrounding areas in the backcountry, where farming was stagnant or contracting. Identification of designated zones was carried out on the basis of the biophysical conditions, which located most of the best agricultural areas within the Matapédia Valley. According to the plan, the dairy industry was to occupy approximately 80% of the land and be located in this region. In the agricultural areas with lesser agricultural capability, the plan provided for extensive farming. A farm with 48 hectares and 25 cows would be enlarged using community pastures. The 15 small milk processing plants were to be amalgamated into 2 plants, located in Amqui and Bonaventure.

The dairy specialization of the later 1960s brought economic benefits and some security for "commercial" producers. However, agricultural specialization made the optimum use of farm resources difficult. It restricted agricultural diversification and regional self-sufficiency. Pork and poultry, which represented 14% of the value of farm production in 1970, had disappeared ten years later. Greater dependence on products from outside the region was created. Farming in the Gaspé is vulnerable; when problems of dairy production arise, such as the purchase of quotas or reduced markets, dairy farmers are unable to turn to alternative enterprises.

Rationalization of the Forest Industry by the BAEQ.

The forest development project for farm woodlots was intended to rationalize and optimize farmland use. Its success has been limited, since farmers have fears that the government will take away their land - a fear based on the parish closings of the 1960s and 1970s. Concessions and Crown forests have received more BAEQ attention. A weakness of the BAEQ lay in the fact that it did not permit development of forest plans which included farm woodlots. The plan did, however, provide for the reforestation of 16,180 hectares of improved land which were unsuitable for agriculture.

Other Sectors

The plan was also designed to increase deep-sea fishing and promote processing plants. Offshore fishing was not generally commercially viable. Thus, the plan reorganized large-scale fishing in a few centres such as Marsoui and Rivière-au-Renard, to the north of Forillon Park. DREE spent $82.6 million between 1975 and 1984 to improve fishery infrastructure. This encouraged the creation and expansion of industrial parks and the establishment of well-equipped industrial fishing plants in Gaspé. Between 1973 and 1976, DREE committed under the federal-provincial agreement more than $45 million to the fishing sector, mainly for development of the Rivière-au-Renard industrial park.

At a cost of more than $20 million during its initial period (1968-1973), the plan established a tourist network oriented principally around Gaspé-Percé, Carleton and Mont St-Pierre. Of these three tourist areas, only Gaspé-Percé attracts significant tourists from outside the region, because of the existence of Forillon Park. Of the $20 million, $8.3 million was used for development of this park, close to Gaspé. This sizeable sum served to create tourist facilities serving a clientele from outside

the region. Of the 2,000 new jobs created by this project, 500 were permanent. The creation of Forillon however marked the displacement of several farms and the expropriation of land, much of which had been farmed.

Consolidation of the primary sector has not always achieved the desired results. Consolidation involves, on the one hand, increased productivity, but on the other hand, a decline in the number of jobs available. Furthermore, consolidation of the dairy industry in the Matane-Campbellton area reduced the number of local plants. Between 1961 and 1976, nineteen local butter or dairy plants have closed down because of the consolidation at Amqui. These closings involved all the small local factories in Gaspé. The increase in production costs, given the distance to certain municipalities, was too high. Consolidation of the forest industry has also led to a loss of 137 small wood products plants (e.g. fence posts, shingles, etc). Fifteen sawmills serving the local population also disappeared.

One of the sectors which has grown since the 1960s is the fishing sector. The creation of a fishing industrial park with associated infrastructures at Rivière-au-Renard, in the county of Gaspé, has made it a regional fishing centre of great importance. Development of the industrial park has had a positive impact on the development of the county of Gaspé-East, which has recorded the lowest level of out-migration in the region since 1970.

The urban centre of Matane is recognized as a "priority industrial zone". This industrial park includes a great diversity of economic activities. Various incentives for the establishment of businesses have been offered to attract new firms; their impact has been positive, but weak.

The plan also provides technical assistance in the organization of production and marketing. Subsidies have been provided to the main urban centre, Matane, to help it deal with problems resulting from rapid population growth. In 1963-64, the Bathurst Power and Paper Company built a large paper mill at New-Richmond; the increase in population which it generated posed a serious housing and municipal infrastructure problem. The BAEQ was interested in this area since it involved land development. In 1964, it submitted to the government a master plan for urban growth for the town of New-Richmond; this involved a total of 12 small municipalities. In addition, 7 municipalities, most in the county of Bonaventure, received technical assistance for urban planning.

According to Dugas (1964), some local areas experience rapid expansion and become important cities, whereas others maintain the demographic status quo or cease to exist as autonomous administrative entities. He notes the case of Matane, a small rural village which has become a regional capital of over 3,000 inhabitants. This municipality provides a wide range of regional services. In the area of rural land development, it exercises a structuring effect and therefore has some influence on land use. On the other hand, some municipalities have also reached a population of 3,000 or more by annexation. This is the case of the town of Gaspé which, in 1971, joined 11 rural municipalities as part of the administrative unification advocated by the BAEQ.

The plan called for highway development projects to achieve the socioeconomic potential of Gaspé and to reinforce exchanges with the outside world. The Highway 132 "circle route" was most affected by this work. DREE allocated more than $54 million to reconstruction of this route, and $10 million for port development. Another example is the construction of the highway to the McGerrigle Mountains, to the west of Murdochville, in order to facilitate mining exploration. Even so, parts of the circle route remain sinuous, narrow, and in ill repair, particularly along the less-inhabited northern coast.

5.4 Conclusion

This section of the report has identified certain socioeconomic and political factors which explain the decrease in farmland in Gaspé. Since the end of the 1960s, the BAEQ contributed to major land use changes in the Gaspé. The small size of municipalities in the region has created a further constraint to coordinated regional development; industrial and tourist development and urban planning are not priorities for a large part of the region because the municipalities do not have the necessary financial, technical or human resources. The BAEQ Plan is a guide to the long-term development of land in the Gaspé region. The goals of the plan remain relevant, but as yet only partially fulfilled.

6. SUMMARY AND PROSPECTS

6.1 Objective of the Study

Since the beginning of the 1960s, agriculture has remained weak in the Gaspé except in certain locations like the Matapédia Valley. The valley has lost however the largest total amount of farmland since the 1960s, yet, mainly because of the consolidation of its dairy industry, the Valley had in 1981 the largest and most visible farm area of the Gaspé. In the same year, most abandoned farmland in the region lay unused. For example, the highest proportion of abandoned farmland in the special study areas of Carleton and Causapscal was left in scrub or natural woodland. The abandoned land included land of low and moderate capability. The BAEQ has assisted commercial farming along the Matane-Campbelltown axis, while the fishing sector has been encouraged in the county of Gaspé-East, and the mining sector has been encouraged in Gaspé-West. If these trends continue commercial use of farmland will be concentrated only along the Matane-Campbelltown commercial axis. In the rest of the region, only the traditional near-subsistence farming, typical of the majority of Gaspé farmers, will persist.

6.2 Abandonment of Farmland in Gaspé

Farmland in the entire Gaspé region has diminished considerably over the past twenty years: between 1961 and 1981, areas in agricultural use decreased by almost 50%. In relative terms, the most severe percentage loss was observed in the counties of Gaspé-East and West. The largest land area abandoned, however, was in the counties of Matane-Matapédia, which had the largest farm base to begin with. The result was a virtual abandonment of farming in all counties of Gaspé and restructuring of the agricultural counties such as Matane-Matapédia and Bonaventure. This reorientation is particularly evident when the change in improved land compared with total farmland is considered. Whereas there has been a substantial decline in total farmland in the entire Gaspé region, improved areas have decreased relatively little over the twenty-year period. This indicates more intensive use of areas associated with agriculture, such as those used by the dairy industry. Furthermore, a large decrease in the number of farms has contributed to these trends observed in the counties of Gaspé, but less so in the counties of Matane-Matapédia and Bonaventure, where the process of consolidation has been more important. The change in the average size of farms and the average land area under crops indicates a strong movement toward consolidation on the part of farm operators. The counties of Matane-Matapédia and Bonaventure, in which the consolidation movement has been concentrated, show the largest remaining farmland areas, as well as the highest potential for agriculture. As well, they are located along the Matane-Campbelltown commercial axis. Despite specialization along this axis, farmers have been attempting for the last several years to diversify their farming operations. In the Valley, 2 farms are experimenting successfully with the rearing of 400 beef cattle using local grains. These farms are partially dependent on government subsidies. On another front, the increasing woodlot concentration in the forestry sector is discouraging small farmers from developing their forestry potential. Thus, development of the forest use on poorer farmland is being held back.

6.3 New Uses for Land No Longer in Agricultural Use

Detailed analysis of farmland use between 1961 and 1981 was done in two specific study areas: the Carleton area and the Causapscal area. Between 1961 and 1981, the total area under crops (35% of farmland) remained stable. Farm woodlots recorded the greatest decrease in farmland; 45% of 1961 woodlots were unused in 1981. Scarcely 5% of land was being developed actively for forestry. Whereas the agricultural capability of the land was low to moderate, its potential for forestry was generally better (classes 3-4). It appears that farmland with both moderate and low agricultural capability has been withdrawn from agriculture, while most land areas with greater forest potential have not yet been put directly into forestry use. It may be concluded that, in part, there is a structural problem in the forest sector.

6.4 Causes and Consequences

On the basis of the regional analysis and the specific local studies, it was possible to identify certain factors which have had a major impact on changes in farmland use in the Gaspé. In the following paragraphs, we list five important factors having an impact on farmland use in the Gaspé region:

- Le Bureau d'aménagement de l'est du Québec (BAEQ) [Eastern Quebec Development Office]

At the end of the 1960s and the beginning of the 1970s, the BAEQ was an important factor in the contraction of farmland in Gaspé. The primary objective of the BAEQ was to promote the economic development of the region and to make optimum use of the land, in order to make it profitable. Among the means used were: parish closings in isolated regions, specialization and concentration of the farm and fishing sectors, and an inventory of forest resources. The parish closings recorded a total decrease of 100,000 hectares between 1966 and 1971. The BAEQ more or less forced farmers to commercialize. Those who liked their lifestyle did not have any choice and had to adapt to the standards established by the BAEQ or had to abandon the agricultural sector altogether. For example, the collection of milk which, since 1960, has been done by tanker truck, requires the farmer to produce larger quantities of milk, to have a high-quality herd and modern handling equipment. The disappearance of the milk can in the 1960s led to a decrease in the number of farmers because of their inability to modernize. The BAEQ programs encouraged the movement toward farm consolidation. Finally, in the counties of Gaspé in particular, the BAEQ promoted the fishery sector, thus encouraging the abandonment of small farms which were frequently located on low-yield farmland.

The BAEQ facilitated the reorganization of the traditional production unit, and enabled the directed use of Gaspé's natural resources. The creation of "industrial zones" led to the abandonment of farmland in certain areas, to the benefit of urban centres. Training assistance for workers in the manufacturing industries also decreased the manpower available for farming.

- The Local Farm Market Situation

During the 1960s, milk production occupied an important place in the regional economy. Among agricultural products, dairy production

was marked by a genuine marketing network, particularly in the counties of Bonaventure and Matane-Matapédia. The arrival of the large food chains led to the appropriation of the market, restricted the market for local farm products, and harmed the promotion of new farm products. Farmland outside a marketing network was doomed to under-utilization and, finally, to abandonment.

- The Demographic Factor

Aging of the population and demographic concentration have both contributed to the farm sector's lack of vitality over the past twenty years and to its decline in most of the Gaspé region. Between 1961 and 1981, the farm population decreased by 86%. Furthermore, those under 15 years of age represented only 10% of the total population in 1981. Thus, the lack of a new farming generation meant that older farmers who were unable to pass their farmland on to the next generation abandoned it. Parallelling this abandonment was a demographic concentration in the towns, where goods and services were more developed; Percé and Matane are examples of such towns.

- Increased Educational Levels

Also related to the problem of a new generation, the increased level of education has strongly influenced the choice of careers and occupations by young people. In addition, increased levels of education have broadened the field of possibilities, and the prospects for continuing the family farm, which is barely viable, lose their attraction. Increased levels of education go hand in hand with the out-migration of youth, which restricts the manpower available for farm production.

- Popular Aspirations

Generally speaking, it is not just the youth, but also the entire population, which is adopting other values in the face of a new technology which brings with it a whole range of new values and needs. The traditional farming lifestyle is brought into question. Subsistence agriculture is no longer desirable or satisfying from the point of view of the majority of the farming population and is practically impossible to sustain unless there is a market for local production. Specialization and government regulations concerning production methods and product quality are only some examples of the difficulties encountered in maintaining the old production ways. The population of the Gaspé region wants to reach a standard of living which draws closer to that of the other regions of Quebec; in order to do so, farming must increasingly become a profitable business, with higher rates of productivity and scale economics. As a result, low-potential farmland is abandoned or converted to other uses; land with some agricultural capability but located too far from the main producing unit shares the same fate.

6.5 Prospects

The Gaspé region has been subject to over-utilization of its agricultural resources, given the commercial markets available and the generally poor capability land base. The old style of farming enabled the use of small plots of land and, thus, a larger total area devoted to farming on small, isolated and often poorer parcels of land. Nowadays, the requirements of commercial farming are forcing the consolidation of small farm units and the

abandonment of scattered, isolated plots of land. In addition, the productivity rate required in order to maintain the economic viability of a present-day farming operation is forcing a movement toward consolidation in order to increase the average farmland area. Given this reality, plus the constraints of market accessibility and the limited quantity of large tracts of land with good potential, it is possible to predict that the future of agriculture in Gaspé, given the present state of the economy and technology, will be regional in nature and concentrated in the Matapédia Valley, on the north shore near Matane, and on the south shore near Carleton. The most important sectors, because of the demands of the local market, are the dairy and cattle industries.

Forest resources would appear, however, to have more long term potential for expansion. From the point of view of physical characteristics, the areas with potential favourable to the maintenance and production of commercially valuable forest products are much more numerous, and are distributed widely throughout the Gaspé Peninsula. The future of the forestry sector depends on national and international economic conditions, as well as on technological progress resolving such problems as spruce budworm infestation, which is affecting forestry development in the Gaspé.

The fishery has also been an important traditional sector in the regional economy. As in the forestry sector, development of the fishery is dependent on national and international markets. It will continue to be very important in the counties of Gaspé and Bonaventure in years to come. Tourism has developed over the past ten years, but it is not expected that its importance in terms of jobs will exceed that of the forestry, fishing, or even the farming sectors.

In sum, our study of farmland abandonment in the Gaspé region leads us to conclude that the most productive longer term use of much of the land resource will be for forest operations, and for agriculture in certain specific areas such as the Valley and the south shore in the county of Bonaventure. It is obvious, however, that some stability in the development of farm resources in Gaspé has been achieved, given its potential and the agricultural market. Certain adjustments to biophysical realities are still possible as, for example, in the northwestern part of the county of Matapédia, where over-utilization of farmland can be observed, and in certain regions of the Valley where tracts of good-quality farmland are under-utilized. In general, however, agriculture is not likely to bring new, important economic development. Only a large market can mobilize new land for agricultural production. The importance of the forestry sector in the growth of the regional economy is linked more to outside market conditions and to technological development.

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ANNEX 1

NAMES OF MUNICIPALITIES WITHIN STANDARDIZED AREAS

Standardized area / Year	1961	1971	1976	1981
Bonaventure - 8				
1	Port-Daniel (East and West), Ste-Germaine	ibd.	Port-Daniel, Ste-Germaine	Port-Daniel (Ouest)
2	St-Godefroi, Shigawake	ibd.	ibd.	Shigawake
3	Hope, Hopetown, Paspébiac	ibd.	Hope[f]	Hope
4	New-Carlisle, Paspébiac-Ouest	ibd.	New Carlisle, Paspébiac	New Carlisle
5	Bonaventure, Elzéar (unorganized)	ibd.	ibd.	Bonaventure
6	St-Siméon	ibd.	ibd.	ibd.
7	St-Charles	Caplan	ibd.	ibd.
8	St-Alphonse	ibd.	ibd.	ibd.
9	Grande-Cascapédia, Maria, New-Richmond, St-Jules	ibd.[a]	ibd.	Maria, New Richmond
10	Carleton, Carleton-sur-Mer, Escuminac, Nouvelle, St-Omer	ibd.[b]	Carleton, Escuminac, Nouvelle St-Omer[g]	Carleton, Escuminac, Nouvelle
11	Mann	Pointe-à-la-Croix[c]	ibd.	ibd.
12	Ristigouche, Ristigouche (south-east)	ibd.	ibd.[h]	Ristigouche
13	St-Fidèle	ibd.	ibd.	ibd.
14	St-Alexis, St-Benoît (unorganized), St-Laurent	St-Alexis, St-Laurent[d]	Matapédia, St-Alexis-de-Matapédia[i]	St-Alexis
15	St-François-d'Assise	L'Ascension-de-Patapédia, St-François d'Assise[e]	ibd.	L'Ascension-de-Patapédia
16	Bonaventure (unorganized)	ibd.	ibd.	*

ibd. no change

a Includes 7 farms in Bonaventure (unorganized).
b Includes 8 farms in New-Carlisle, 5 in Paspébiac, and 8 in St-Laurent-de-Matapédia.
c Includes 7 farms in Paspébiac West and 3 in Port-Daniel.
d Includes 8 farms in Ristigouche (south-east).
e Includes 5 farms in St-Fidèle and 3 in Ste-Germaine.
f Includes 5 farms in New-Carlisle.
g Includes 3 farms in New-Carlisle.
h Includes 5 farms in Matapédia.
i Includes 7 farms in St-François-d'Assise

* 3 farms in Bonaventure (unorganized) and 2 farms in Pointe-à-la-Croix included in Carleton and Escuminac are rationalized.

NAMES OF MUNICIPALITIES WITHIN STANDARDIZED AREAS

Standardized area / Year	1961	1971	1976	1981
Gaspé-East - E				
1	Cloridorme, Grande-Vallée, Petite-Vallée	Ibd.	Cloridorme, Grande-Vallée	Grande-Vallée
2	Baie-de-Gaspé (North and South) Douglas, Grande-Grève, Haldimand, L'Anse-aux-Griffons, Rivière-au-Renard, St-Alban, St-Maurice, Sydenham-Sud, York	Gaspé	Ibd.[c]	Ibd.
3	Barachois, Bridgeville, Cap-d'Espoir, Percé, St-Pierre, Ste-Thérèse	Ste-Thérèse, Percé[a]	Ibd.[d]	Percé
4	Grande-Rivière, Grande-Rivière-West, Newport, Pabos-Mills, Petit-Pabos, St-François	Ibd.[b]	Grande-Rivière, Newport, Pabos	Grande-Rivière
5	St-Yvon (unorganized) Gaspé-Est (unorganized)	Gaspé-Est (unorganized)	Ibd.	Ibd.

Ibd. no change

a Includes 2 farms in Gaspé-East (unorganized).
b Includes 6 farms in Grande-Vallée and Petite-Vallée.
c Includes 5 farms in Cloridorme and Grande-Vallée.
d Includes 6 farms in Grande-Rivière.

NAMES OF MUNICIPALITIES WITHIN STANDARDIZED AREAS

Standardized area / Year	1961	1971	1976	1981
Gaspé-West - G				
1	St-Norbert	Cap-Chat	ibd.	ibd.
2	Ste-Anne, St-Joachim	ibd.[a]	ibd.[b]	Ste-Anne-des-Monts
3	Christie, Duchesnay	La Martre, Rivière-à-Claude	ibd.	Marsoui
4	Ste-Madeleine, St-Maxime	ibd.	ibd.	St-Maxime
5	Gaspé-West unorganized)	ibd.	ibd.	*

ibd. no change

a Includes 3 farms in La Martre, 6 farms in Rivière-à-Claude and 2 farms in Gaspé-West (unorganized).
b Includes 2 farms in La Martre, 3 farms in Ste-Madeleine and 6 farms in St-Maxime.

* 1 farm in Gaspé-West (unorganized) included in Marsoui is rationalized.

NAMES OF MUNICIPALITIES WITHIN STANDARDIZED AREAS

Standardized area / Year	1961	1971	1976	1981
Matane-Matapédia - M				
1	Ste-Florence, St-Jacques, Ste-Marguerite, St-Raphaël	ibd.	ibd.	St-Jacques, St-Raphaël
2	St-Benoît, St-Edmond St-Léon, St-Pierre, St-Zénon	ibd.[a]	ibd.	
3	Ste-Irène	ibd.[b]	ibd.	ibd.
4	St-Cléophas	ibd.	ibd.	ibd.
5	La Rédemption, Ste-Jeanne-d'Arc	ibd.	ibd.	ibd.
6	St-Antoine,	ibd.	ibd.	St-Antoine, St-Moïse, St-Noël
7	Ste-Marie	ibd.[c]	ibd.[g]	ibd.
8	St-Damase, Matapédia partie Lac-Matapédia (unorganized), St-Jean-Baptiste, St-Tharcisius, St-Jérôme, St-Léandre	St-Alexandre, St-Damase, St-Jean-Baptiste, St-Tharcisius, Matapédia, partie Lac-Matapédia (unorganized), St-Jérôme, St-Léandre, Ste-Paule, St-Ulric[d]	ibd.	St-Alexandre, St-Damase, St-Tharcisius, St-Léandre, St-Ulric
9	Grand-Métis, Les Boules, St-Octave	ibd.[e]	ibd.	ibd.
10	Baie-des-Sables	ibd.	ibd.	ibd.
11	St-Adelme, St-Jean, St-Luc	ibd.	ibd.[h]	St-Adelme, St-Luc[i]
12	Grosses-Roches, Petite-Matane, Ste-Félicité	ibd.[f]	ibd.	Petite-Matane, Ste-Félicité
13	St-Paulin, St-Thomas	ibd.	ibd.	ibd.
14	Capucins, Les Méchins	ibd.	ibd.	Capucins
15	Matane (unorganized)	St-Nil, St-René, Matane (unorganized)	ibd.	ibd.
16	Matapédia, Seigneurie-du-Lac-Mitis (unorganized)	ibd.	ibd.	ibd.
17	Matapédia part of Lac-Casault (unorganized)	ibd.	ibd.	ibd.

ibd. no change

[a] Includes 5 farms in Matapédia (unorganized).
[b] Includes 9 farms in Ste-Florence.
[c] Includes 4 farms in Ste-Marguerite.
[d] Includes 2 farms in St-Paulin and 1 farm in Matane (unorganized).
[e] Includes 6 farms in Grosses-Roches and 5 farms in St-Nil.
[f] Includes 8 farms in Les Méchins.
[g] Includes 3 farms in Matapédia (unorganized).
[h] Includes 4 farms in St-René.
[i] Includes 7 farms in St-René.

ANNEX 2

The Canada Land Inventory: Land Potential for Agriculture

In this classification, inorganic soils are grouped in seven classes on the basis of information gathered during pedological surveys. Land in classes 1 to 3 is considered to have high potential for continuous open-field cultivation. Class 4 land is considered marginal for continuous cultivation, while land in classes 5 and 6 is appropriate for the cultivation of hardy forage plants. Class 7 land is considered unsuitable for cultivation or permanent grazing.

Some of the main factors on which this classification is based are as follows:

(1) Farming operations must make use of modern management techniques and mechanized cultivation.

(2) Land requiring improvements, including clearing and drainage which the grower has the means to carry out himself, is classified by its limitations once these improvements have been made. Land which requires improvements beyond the farmer's means is classified according to its current condition.

(3) Socioeconomic and physical factors such as distance from markets, transportation networks, size of farm operation, property system, methods of cultivation, risks of crop damage, and individual capabilities are not taken into consideration.

(4) Classification does not include the land potential for tree, fruit, berry or ornamental plant production, nor for recreational or wildlife activities.

(5) Land is classified according to intensity rather than type of limitations with respect to agricultural capability. Each class includes many land types which may require different management practices.

CLASSES OF LAND POTENTIAL

Class 1: LAND WITH NO IMPORTANT LIMITATIONS ON AGRICULTURAL USE

Soil is deep and well or partially drained; it retains water well, and, in its natural state, is well supplied with nutritive elements. It is easily cultivated and maintained. Proper management permits high to moderately high productivity for an extensive selection of important crops.

Class 2: LAND WITH LIMITATIONS THAT SOMEWHAT RESTRICT THE CHOICE OF CROPS OR REQUIRE MODERATE CONSERVATION PRACTICES

Soil is deep and retains water well; its limitations are moderate. Work can be carried out with a minimum of difficulty. Proper management ensures moderately high to high productivity for a fairly broad range of crops.

Class 3: LAND WITH MODERATELY SERIOUS LIMITATIONS WHICH RESTRICT THE CHOICE OF CROPS OR REQUIRE SPECIAL CONSERVATION PRACTICES

Land in this class has more serious limitations than that in class 2. These relate to one or more of the following: time and effort required to prepare the soil; sowing and reaping; crop choices and conservation methods. When well managed, this land has average to moderately high productivity when used for a fairly wide variety of crops.

Class 4: LAND WITH SERIOUS LIMITATIONS RESTRICTING THE CHOICE OF CROPS OR REQUIRING SPECIAL CONSERVATION PRACTICES

The limitations characterizing this class seriously affect one or more of the following: time and effort required to prepare the soil; sowing and reaping; crop choices and conservation methods. This land is marginally or fairly productive for a reasonably wide variety of crops, but can be highly productive for specially adapted cultivation.

Class 5: LAND WHICH HAS VERY SERIOUS LIMITATIONS AND IS APPROPRIATE ONLY FOR GROWING HARDY FORAGE PLANTS, BUT WHICH IS OPEN TO IMPROVEMENT

Land in this class has limitations which are so serious that it is not appropriate for sustained production of annual large-crop production. It can produce hardy forage plants, whether indigenous or cultivated, and can be improved through the use of farm machinery. Improvement may include clearing, better sowing and growing methods, fertilization, or irrigation.

Class 6: LAND WHICH HAS VERY SERIOUS LIMITATIONS, IS INAPPROPRIATE FOR GROWING ANYTHING BUT HARDY FORAGE PLANTS AND IS NOT SUSCEPTIBLE TO IMPROVEMENT

This land supplies farm animals with some sustained grazing, but its limitations are so

serious that it is scarcely practical to try to improve it using farm machinery, either because the terrain is not suited to the use of such machinery or because the soil does not react properly to improvement efforts, or because the grazing season is very short.

Class 7: LAND WHICH IS UNUSABLE FOR CULTIVATION OR FOR HARDY FORAGE PLANTS

This class includes stretches of bare rock or other soilless areas and waterways which are too small to show on maps.

O: ORGANIC SOILS (not included in the classification system).

The Canada Land Inventory: Land Potential for Forestry

This classification method groups all inorganic and organic soils into seven classes according to their suitability for producing commercial wood. The best land in Canada for producing this type of wood will be ranked as class 1; land which does not lend itself to commercial forest production will be ranked as class 7; these two classes are the extremes. Due to climatic conditions, class 1 land will not be found in some regions of Canada; in others, class 2 land will be too small in size to show on maps, because of the scale used.

Important elements underlying the classification include:

(1) All known information, or information obtained indirectly about a given area, particularly concerning subsoil, soil profile, depth, humidity, fertility, relief, climate and vegetation.

(2) A range of productivity corresponds to each class of land potential, based on the average growth in the best species or group of species adapted to the location which have almost reached an age for felling. Productivity classes are expressed in volume, determined by the number of cubic feet of raw commercial wood with a minimum diameter of four inches. This figure does not include clearing cuts, bark or branches. Productivity is given for "normal", that is, complete tree populations. It may be assumed that good management would be essential in producing populations of this nature.

(3) The following factors are not taken into account: site, accessibility, distance from markets, size of forest, property system, current status, or potential for special harvests such as Christmas trees.

Classes are based on the natural state of the land, without improvements such as fertilization, drainage, etc. Improved management may change the productivity of a forest; to the extent that limitations figuring in the definition may be changed, the class in which the forest is placed could also change. However, important changes will be made only through the use of costly, continuous practices.

CLASSES OF LAND POTENTIAL

Class 1: LAND WITH NO IMPORTANT LIMITATIONS ON COMMERCIAL FOREST GROWTH

Soil is deep, permeable, of medium texture, moderately well or partially drained, has good water retention capacity, and is naturally very fertile. Its location is such that it frequently receives water seepage and nutrients from adjacent surfaces. It is not subject to extremes of temperature nor to evapotranspiration. Its productivity will generally exceed 111 cubic feet per acre per year.

Class 2: LAND WITH SLIGHT LIMITATIONS ON COMMERCIAL FOREST GROWTH

Soil is deep, well or moderately well drained, of medium or fine texture, with good water retention capacity. The most frequent limitations (all of which are relatively unimportant) are as follows: unfavourable climate, insufficient humidity, restricted depth of rooting zone, somewhat low fertility, and the cumulative effect of several unfavourable secondary soil characteristics. Productivity will generally be between 90 and 110 cubic feet per acre per year.

Class 3: LAND WITH MODERATE LIMITATIONS ON COMMERCIAL FOREST GROWTH

Soil may be deep or somewhat thin, well or partially drained, of medium or fine texture, with moderate or good water retention capacity. It may have somewhat low fertility or be subject to periodic humidity-related imbalances.

The most common limitations are as follows: unfavourable climate; restricted rooting zone depth; lack of, or moderate excess of, soil humidity; somewhat low fertility; drainage interference; exposure (in maritime regions); and intermittent flooding. Productivity will

generally be between 71 and 90 cubic feet per acre per year.

Class 4: LAND WITH MODERATELY SEVERE LIMITATIONS ON COMMERCIAL FOREST GROWTH

Soil may be deep or moderately thin from one area to another. Drainage may be excessive, partial, or poor; texture may be coarse or fine; water retention capacity may be good or poor; structure may be good or poor; and fertility may be natural, good or poor.

The most frequent limitations are as follows: lack of, or excess of, humidity; unfavourable climate; restricted rooting zone depth; poor structure; excessive carbonate holdings; exposure or low fertility. Productivity will generally be between 51 and 70 cubic feet per acre per year.

Class 5: LAND WITH SEVERE LIMITATIONS ON COMMERCIAL FOREST GROWTH

Soil is thin over rock, stony, excessively or poorly drained, of coarse or fine texture, with poor water retention capacity and low natural fertility.

The most common limitations (several of which are often present at once) are as follows: lack of, or excess of, humidity; lack of soil depth over rock; unfavourable regional or local climate; low fertility; exposure (particularly in maritime regions); excessively stony ground; high carbonate holdings. Productivity will usually be between 31 and 50 cubic feet per acre per year.

Class 6: LAND WITH VERY SEVERE LIMITATIONS ON COMMERCIAL FOREST GROWTH

Mineral soil is often thin, stony, excessively drained, coarse in texture, and low in fertility. A high percentage of the land in this class is made up of poorly drained organic soils.

The most frequent limitations (several of which are frequently present at once) are: thin soil over rock; lack of, or excess of, humidity; large holdings of soluble salts; low fertility; exposure; flooding; and stony ground. Productivity will generally be between 11 and 30 cubic feet per acre per year.

Class 7: LAND WITH LIMITATIONS SEVERE ENOUGH TO PREVENT COMMERCIAL FOREST GROWTH

Inorganic soils are generally very thin over rock, regularly subject to flooding, or hold soluble salts in toxic quantities. Soils which are currently subject to erosion or extremely dry soils may also be placed in this class. A high percentage of the land is made up of poorly drained organic soils.

The most common limitations are as follows: thin soil over rock, excessive soil humidity, frequent flooding, erosion, toxic holdings of soluble salts, and extreme climatic conditions or exposure. Productivity will generally be less than 10 cubic feet per acre per year.

ANNEX 3

TABLE 1

FARMLAND (HECTARES) FOR EACH STANDARDIZED AREA AND CHANGES IN FARMLAND AREA BETWEEN 1961 AND 1981*

Standardized area	1961	1971	1976	1981	Absolute change 1961-81	% change 1961-81
M 16	n.a.	n.a.	n.a.	0	n.a.	n.a.
E 05	804	0	0	0	-804	-100
M 13	3 099	0	0	0	-3 099	-100
B 13	3 505	n.a.	0	0	-3 505	-100
G 05	2 010	0	0	73	-1 937	-93
B 11	2 503	1 377	n.a.	189	-2 314	-92
B 16	4 926	n.a.	n.a.	284	-4 642	-94
E 01	2 067	449	n.a.	374	-1 693	-82
M 17	n.a.	n.a.	n.a.	500	n.a.	n.a.
G 03	2 680	n.a.	n.a.	662	-2 018	-75
E 04	1 272	1 445	n.a.	696	-576	-45
B 04	1 358	n.a.	817	709	-649	-48
G 04	4 028	1 498	n.a.	832	-3 196	-79
M 15	4 483	1 941	0	930	-3 553	-79
B 03	4 679	1 100	1 309	1 213	-3 466	-74
M 14	4 598	780	1 492	1 249	-3 349	-73
B 06	4 810	2 592	2 603	1 325	-3 485	-72
E 02	5 560	1 929	1 876	1 449	-4 111	-74
B 08	4 365	1 832	1 875	1 511	-2 854	-65
B 01	2 963	2 166	2 352	1 834	-1 129	-28
G 02	7 230	4 500	3 566	2 087	-5 143	-71
E 03	7 323	4 723	2 654	2 184	-5 139	-70
M 04	3 085	1 400	1 580	2 299	-786	-25
B 02	5 744	3 230	3 427	2 772	-2 972	-52
G 01	6 074	3 477	4 184	2 850	-3 224	-53
B 15	4 305	4 358	1 722	2 900	-1 405	-33
M 03	5 245	6 083	4 570	3 147	-2 098	-40
M 07	4 382	4 548	4 550	3 290	-1 092	-25
B 14	7 060	4 750	3 336	3 299	-3 761	-53
B 07	6 768	4 583	3 874	3 394	-3 374	-50
B 12	5 056	3 079	5 679	3 582	-1 474	-29
B 05	11 350	5 439	5 201	4 824	-6 526	-57
M 10	6 261	5 136	5 188	5 063	-1 198	-19
M 05	11 827	7 970	7 581	6 136	-5 691	-48
M 12	12 627	8 456	7 997	6 755	-5 872	-46
M 06	13 050	9 792	6 954	6 839	-6 211	-47
B 09	15 653	9 360	7 576	7 821	-7 832	-50
B 10	18 213	13 013	9 034	9 056	-9 157	-50
M 09	12 505	10 904	10 242	9 599	-2 906	-23
M 01	20 394	12 928	11 02	10 734	-9 660	-47
M 11	14 090	9 986	9 250	12 100	-1 990	-14
M 08	40 091	31 352	28 379	21 975	-18 116	-45
M 02	40 975	34 592	33 239	28 356	-12 618	-31
Total	339 017	220 768	193 309	174 892	-164 625	-48

n.a. - not available

* Surface areas are classified in increasing order in 1981.

B: County of Bonaventure
E: County of Gaspé East
G: County of Gaspé West
M: Counties of Matane-Matapédia

Source: Statistics Canada

TABLE 2

IMPROVED LAND (HECTARES) FOR EACH STANDARDIZED AREA AND CHANGES IN FARMLAND AREA BETWEEN 1961 AND 1981*

Standardized area	1961	1971	1976	1981	Absolute change 1961-81	% change 1961-81
M 16	n.a.	n.a.	n.a.	0	n.a.	n.a.
E 05	232	0	0	0	-232	-100
B 13	656	n.a.	0	0	-656	-100
M 13	931	0	0	0	-931	-100
G 05	598	0	0	40	-558	-93
B 11	763	519	n.a.	69	-694	-91
E 01	759	195	n.a.	107	-652	-86
B 16	1 562	n.a.	n.a.	137	-1 425	-91
M 17	n.a.	n.a.	n.a.	201	n.a.	n.a.
B 04	510	n.a.	383	296	-214	-42
G 03	819	n.a.	n.a.	361	-458	-56
G 04	1 236	587	n.a.	401	-835	-67
E 04	623	819	n.a.	437	-186	-30
M 15	1 585	548	0	479	-1 106	-70
B 03	1 759	439	511	623	-1 136	-64
M 14	1 948	426	635	675	-1 273	-65
E 02	1 635	675	793	763	-872	-53
M 04	1 183	501	806	798	-385	-32
B 06	2 168	1 216	1 023	816	-1 352	-62
B 01	1 167	903	903	869	-298	-25
G 02	3 107	2 494	1 363	885	-2 222	-71
B 08	1 255	740	615	964	-291	-23
B 12	1 364	1 021	1 670	1 019	-345	-25
E 03	3 414	1 790	1 439	1 179	-2 235	-65
B 15	1 647	1 724	620	1 376	-271	-16
G 01	3 075	1 646	1 814	1 446	-1 629	-53
B 14	3 146	1 609	1 401	1 446	-1 700	-54
B 02	2 079	1 530	1 629	1 511	-568	-27
M 03	1 864	2 346	1 723	1 554	-310	-17
M 07	2 183	2 463	2 456	1 972	-211	-10
B 07	3 261	2 567	1 913	2 197	-1 064	-33
B 05	4 722	2 738	2 395	2 303	-2 419	-51
M 05	4 755	3 276	3 264	2 710	-2 045	-43
M 10	3 996	3 078	3 098	3 024	-972	-24
M 06	5 318	4 880	3 152	3 312	-2 006	-38
B 10	7 196	5 495	4 283	3 930	-3 266	-45
B 09	6 356	3 715	3 444	3 937	-2 419	-38
M 01	8 219	5 667	5 103	4 261	-3 958	-48
M 12	6 527	5 094	4 551	4 500	-2 027	-31
M 11	5 969	5 080	4 269	6 229	+260	+4
M 09	7 343	6 909	6 176	6 311	-1 032	-14
M 08	18 751	15 480	14 686	11 107	-7 644	-41
M 02	19 963	18 291	17 882	16 670	-3 293	-16
Total	145 644	106 461	93 999	90 915	-55 450	-38

n.a. - not available

* Surface areas are classified in increasing order in 1981.

B: County of Bonaventure
E: County of Gaspé East
G: County of Gaspé West
M: Counties of Matane-Matapédia

Source: Statistics Canada

TABLE 3

LAND AREAS UNDER MAJOR CROPS (HECTARES) BETWEEN 1961 AND 1981

County	Cultivated hay	Wheat	Oats*	Mixed grains	Potatoes	Other (corn, barley, rye)	Total - major crops
Bonaventure							
1961	14 251	229	7 416	1 193	847	210	24 146
1971	9 081	166	3 950	1 172	312	166	14 847
1976	8 074	215	2 815	680	292	216	12 292
1981	9 670	194	2 994	406	293	676	14 233
Gaspé East							
1961	3 049	55	972	27	299	71	4 473
1971	1 422	2	404	7	122	7	1 964
1976	523	1	322	4	194	9	1 053
1981	950	0	265	4	23	81	1 323
Gaspé West							
1961	3 088	43	1 454	131	232	44	4 992
1971	1 744	12	560	150	89	33	2 588
1976	1 206	21	636	79	68	30	2 040
1981	1 173	24	348	93	58	189	1 885
Matane							
1961	14 644	131	8 267	477	688	168	24 375
1971	12 316	159	4 854	692	303	293	18 617
1976	12 270	247	4 458	493	350	723	18 541
1981	11 963	251	3 279	1 212	294	1 338	18 337
Matapédia							
1961	20 735	83	9 193	2 772	505	32	33 320
1971	19 408	99	5 165	2 264	80	162	27 178
1976	19 645	334	5 430	1 609	44	729	27 791
1981	18 254	272	4 086	993	21	2 640	26 266

* Includes oats for forage.

Source: Statistics Canada

TABLE 4

FARMLAND (HECTARES) FOR EACH STANDARDIZED AREA AND CHANGES IN FARMLAND AREA BETWEEN 1961 AND 1981*

Standardized area	1961	1971	1976	1981	Absolute change 1961-81	% change 1961-81
M 16	n.a.	n.a.	n.a.	0	n.a.	n.a.
E 05	137	0	0	0	-137	-100
B 13	448	n.a.	0	0	-448	-100
M 13	624	0	0	0	-624	-100
G 05	140	0	0	8	-132	-94
E 01	497	104	n.a.	45	-452	-91
B 11	543	391	n.a.	50	-493	-91
G 03	539	n.a.	n.a.	77	-462	-86
B 16	1 021	n.a.	n.a.	101	-920	-90
M 17	n.a.	n.a.	n.a.	145	n.a.	n.a.
B 04	326	n.a.	302	233	-93	-28
E 04	357	476	n.a.	263	-94	-26
G 04	727	355	n.a.	272	-455	-62
M 15	989	244	0	343	-646	-65
B 03	1 269	260	448	345	-924	-73
M 14	1 048	265	435	446	-602	-57
E 02	1 067	394	584	448	-619	-58
M 04	686	328	497	514	-172	-25
B 06	1 612	814	732	520	-1 092	-68
G 02	2 030	1 404	1 157	543	-1 487	-73
B 08	824	446	421	588	-254	-30
B 01	751	650	681	598	-153	-20
E 03	2 499	1 062	995	698	-1 801	-72
B 12	888	560	1 051	783	-105	-12
G 01	1 696	969	1 289	962	-734	-43
B 15	928	976	424	963	-19	-2
B 14	1 808	929	980	1 074	-734	-40
B 02	1 520	1 062	1 235	1 119	-401	-26
M 03	1 247	1 514	1 296	1 157	-90	-7
B 05	2 739	1 838	1 536	1 517	-1 222	-45
M 07	1 597	1 765	2 180	1 526	-71	-4
B 07	2 037	1 487	1 367	1 611	-426	-21
M 05	3 136	2 090	2 349	1 881	-1 255	-40
M 10	2 754	2 160	2 290	2 193	-561	-20
B 09	4 048	2 305	2 498	2 374	-1 674	-41
M 06	3 736	2 987	2 320	2 498	-1 238	-33
M 01	5 103	3 456	3 826	2 688	-2 415	-47
B 10	4 186	3 617	3 067	2 906	-1 280	-30
M 12	4 241	3 271	3 361	2 949	-1 292	-30
M 11	3 703	2 519	3 107	3 901	+198	+5
M 09	5 045	4 226	4 529	4 714	-331	-6
M 08	12 057	9 977	10 733	8 047	-4 010	-33
M 02	12 951	12 265	13 242	12 576	-375	-3
Total	93 626	67 166	68 932	63 676	-29 950	-32

n.a. - not available

* Surface areas are classified in increasing order in 1981.

B: County of Bonaventure
E: County of Gaspé East
G: County of Gaspé West
M: Counties of Matane-Matapédia

Source: Statistics Canada

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